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AROUND THE LAKES.

CLEVELAND.

Captain Esseltyne and the Mont fleet are in the city.

The propeller Martini, rebuilt and lengthened 25 feet at Lorain last winter, was in port last week.

Grover and Bradley's new steamer, being built at Radcliffe's yard, has been named Nellie Grover.

Captain Thomas Dwyer has been appointed master of the tug Dreadnaught, which will probably go into the new line.

Mr. H. J. Webb, who has been confined to the house by malarial fever, is out in the sunshine again, although he is not yet very strong.

Captain McLeod, who was in the city last week in the interest of the insurance companies, finds the damage to the schooner Hartford amounts to about $300.

An unusual sight at Cleveland shipyards in this city these days is an end launch. There will be two 150 feet barges launched in that way at Root's yard some time in August.

Wm. Burtis sold his half interest in the little schooner Venture to S. Norris for $275, who thereby became sole owner. Mr. Norris then sold the whole to Mrs. Hattie Farragher for $425.

Messrs. Bassett & Presley have the contracts to furnish the arches, iron, nails and spike for the propeller Northerner, the new steamer at Radcliffe's yard, and the two Wallaces, which arrived here to-day.

The tonnage measurement of the steamer Robert R. Rhodes is 1576.23 gross, that of the Gettysburg 1358.38, with home port at Detroit, that of the Saugatuck, built at Saugatuck, by Martel, 159.54, Horace A. Tuttle, 1585.12.

Captain Andrew Green has been appointed master of the steamer William Chisholm, Captain Minch deciding to remain ashore in consequence of the ill health of his father, Captain Philip Minch, who has been confined to the house for several months.

F. O. Burrows filed a claim in the United States district court yesterday against the barge Mary Stockton for $95, claimed due for towage. A keeper was put in charge of the barge, who will remain in possession until the necessary bond is furnished.

The schooner H. J. Webb, which was in port this week, called to mind Captain Dan Young, who sailed her last season, and it was learned from his old friend Joseph Cary, who was standing near by, that the captain had taken up his abode temporarily at Wichita, Kansas, where, we are glad to learn, he is doing well.

The Globe Iron Works Co. has purchased 900 feet of the Stone estate, fronting on the old river bed, and adjoining their present iron yard. This will take quite a slice out of the yard now occupied by Mr. Radcliffe. The price paid is $100 per foot, and possession will be given in October, at which time Mr. Radcliffe's steamer for Berriman will be in her element.

Mr. A. E. Banks, of South Frankfort, has sold the tug John Gregory to W. A. Creech, of Canton, Ohio, J. N. Archer, Mary Anderson, and A. E. Bates, of Cleveland, for $9,000. Mr. Creech purchased 9-16ths, but Anderson & Bates will handle her in the harbor. Captain Joseph Gorman has been appointed master and Newton Woodward engineer. The Gregory is fitted for wrecking and towing through the rivers.

The steam launch Lottie M., built by Mr. L. Jackson, on the old river bed, east of Murphy & Miller's yard, for Messrs. Hausher & Son and Akers, took her place in the water last Saturday. She is 33 feet over all, 7 feet beam and 4¼ feet depth of hold. Her machinery is 5 by 6 inches, and her Scotch boiler 48 by 35 inches. She cost $1200 and will be used for quick delivery of vessel supplies. Mr. Ordner, who built the machinery, owns a half interest in her.

Arrangements are in progress for the formation of a new tug line, with headquarters at Anderson & Bates' office, foot of Superior street. The line will include the tugs John Gregory, Captain Joe Gorman; tug W. D. Cushing, Captain John Archer; tug Paddy Murphy, Captain Chas. Stickney; tug Tom Maytham, Captain Wm. Collier; tug R. K. Hawley, Captain John Hobson; tug J. W. Dudley, master not yet named.

In an altercation with a party of roughs on the corner of Ontario and St. Clair streets about 5 o'clock this morning, Harry, alias "Mushy" Gorman, a sailor, was struck on the head, from the effects of which he died. Billy Higgins, was arrested as the murderer.

The Cleveland vessel owners' association met in the board of trade rooms yesterday. The vessel men are again called upon to do something toward bringing about a reduction of the charges for unloading iron ore. Last season the railway companies put the rate up to 18 cents and this season it is 20 cents. A committee, consisting of H. M. Hanna, J. C. Gilchrist, W. D. Rees, and Captain Thomas Wilson, was appointed to confer with the railway managers.

At Cleveland drydock the tug Andrew J. Smith had her wheel and shaft taken off and a new stern pipe put in; the tug Constitution got new stern bearing brasses; the schooner Phineas S. Marsh, ashore last fall, had her bottom examined and buts calked; she does not seem to have suffered much damage; the schooner Queen City was searched up, had buts calked and a leak stopped. The company is making a new yard for the schooner S. L. Watson. They also have gangs of men at work on the Northerner, Glidden and Sparta. The Glidden will go into drydock for a new wheel, and the Sparta for a new tow post and some new rail.

Captain Tuttle and Louis Pahlow, of Milwaukee, surveyed the damages on the schooner Thomas L. Parker, caused by her collision with the barge Louie O'Neill, and estimated them at $2,500. Suit has been entered by the owners of the O'Neill. The Louie O'Neill was built in Cleveland by Stephens & Presley in 1862, and was then a steamer named S. D. Caldwell, and as such became a notorious ice breaker. She left Cleveland in the winter of 1866, under command of Captain B. G. Sweet, for Milwaukee, and crushed her way through the ice to the foot of Lake St. Clair, where she was compelled to come to a halt, and the captain finally gave up the trip. Captain J. N. Lewis, who had previously sailed her, was then sent for and took her through to her destination, arriving in Milwaukee Christmas eve, having forced her way through ice in many places thirteen inches thick. On another occasion she steamed into Chicago in mid-winter, and the bridge-tender on Rush street bridge refused to open the bridge for her, declaring that navigation was closed. The owner, Captain Dwight Scott, who was lost with the propeller Equinox, sued the city of Chicago for the detention and recovered $7,000. One of the S. D. Caldwell's engines is now in the barge J. W. Westcott and the other in the J. W. Mills. The steamer Caldwell was converted into the tow barge Louie O'Neill because she eat up so much coal. Captain B. G. Sweet, who was one of the fancy steamboat masters in those days, is now living in Toledo, and J. N. Lewis, who had the reputation of being one of the most persistent steamboat drivers, is now living in Batavia, Ill.

ST. CLAIR FLATS.

Special to the Marine Record.

The steambarge Mineral Rock, run on above the Big Bassett, Saturday night, 11 o'clock, in a dense fog. Which shut in so quick that the best of management could not avoid getting on. She had four barges in tow and the good handling of the same, saved more expense. The barge Ireland, assisted her in getting off. MCNIFF & SON.

CHICAGO.

Special to the Marine Record.

The fine steamship Roswell P. Flower, Captain M. Tinney, made the first round trip from Lake Michigan ports to Buffalo and back this season. She left Milwaukee Sunday, April 24, arrived at Buffalo the Wednesday following, left that port on the 30th of April and arrived at this port on the 4th of May.

The fine steamship Wiley M. Egan, recently built by Radcliffe, at Cleveland, has proved herself the best carrier of her tonnage of the new steamships which have come to this port this season. She left here last Friday for Buffalo with 79,102 bushels of corn, on a draft of 14 feet 10 inches forward, 15 feet 9 inches aft, and it is estimated she could have carried 86,000 bushels, had she taken on a full load.

The Vulcan Iron Works Co. completed the repairs on the steamship Susquehanna at noon on Tuesdey and she left Miller Bros.' shipyard, where she lay, while the repairs were being made, at 1 p. m., to go to an elevator and load grain for Buffalo.

At Miller Bros.' drydocks the schooner Carrier, which collided with the pier at Pentwater recently, is in dock getting some new frames, new ceiling and outside plank on the port side, from her stem to just abaft the fore rigging, extending from the deck to the bilge strake; the schooner Orkey Lass was in dock for some new frames and deck aft; the tug O. B. Green for a new rudder and fixing her stern bearings; the schooner Jason Parker to have her bottom calked; the George Durbar, which is being converted into a barge, went out of dock and will go to the derrick and have two masts placed in her; the schooner Snowdrop is getting a new foremast; the schooner Z. Y. M. C. A. received a new jibboom; schooner Evening Star a new jibboom and cathead; tug Uncle Sam is getting new stanchions, bulwarks and rail all around.

At the Chicago Drydock Co.'s, schooner J. A. Holmes was in dock for bottom calking; tug Meteor for a new wheel; a sandscow for repairs; tug Mariel for calking, a new rudder and a general overhauling; the schooner Coral is getting a new main mast; schooner H. W. Sage will go into dock and have her bilges and top sides calked.

The passenger and freight steamer A. B. Taylor, which runs between Saugatuck and this port, has been greatly improved by Captain R. T. Rogers, during the winter. He has built a concave on both of her sides, thereby increasing her carrying capacity; and rebuilt her from the main deck up, giving her all upper works and a full length cabin on her upper deck which increases the number of her state rooms and enables her to carry fifty passengers. She towed over on Monday a steam yacht, 50 feet over all, 12 feet beam, 5 feet depth of hold, built by James Elliott, shipbuilder, Saugatuck, for A. R. Beck & Co., lumber merchants, to South Chicago.

James Elliott, shipbuilder, Saugatuck, will commence building a steambarge for R. C. Brittain. Her dimensions will be given later.

Captain W. H. Evans, of the steambarge Michael Groh, is suffering from a severe attack of brain fever and his brother Edward, who was mate with him is commanding the steambarge. Captain W. H. Evan's, wife died May 7th, at St. Joseph, Mich., three days after the birth of their first born child, a son. The shock to his system occasioned by his wife's sudden death, completely prostrated him and caused his illness. He has been taken to his father's home at Lincoln, Mich.

Captain John Jenks, returned Saturday, from Detour, he having made an inspection of the schooner City of Sheboygan, sunk east of Pipe Island on Drummonds, for her owners and others interested. He states her bow is under water nineteen feet and her stern thirty-nine feet, and he estimates she can be raised and placed in drydock for $2,500.

The schooner Eliza Day, was supplied with one of Chester's patent fog horns, last Monday.

The Gooderich steamboat company, commenced Tuesday, to run the steamer Sheboygan, as a morning boat between this port and Milwaukee, which will make two boats daily. The steamer Chicago and Muskegon, will be the boats to start in the evening. The steamer Depere, will run in connection with the steamer Menominee, on the route between Chicago, Grand Haven and Muskegon, starting from Chicago every evening, except Sunday, at 7 o'clock.

The propeller Tioga arrived here Sunday from Buffalo, She made the fastest trip on record between the two ports, sixty-three hours and a half. The fastest time previously made was by the propeller Jewett, about three years ago, in sixty-five hours and forty-five minutes. The Tioga used about eighty tons of coal on the trip.

Captain William Fagan, formerly master of the steamer William Edwards, has brought suit against Valentine Fries, owner of the steamer, for alleged defamation of character. He wants $5,000 damages. Last February, during the progress of a coal suit, Mr. Fries testified that Captain Fagan made false entries in his books, and that he was in the habit of using opiates that made him unfit to perform his duties as master of a vessel. The propeller Edwards, owned by V. Fries, would have been libeled before leaving this port, but W. M. Egan, V. Fries' agent, and Schuyler & Kramer, his solicitors, agreed to give bonds.

Beginning Tuesday the Goodrich Transportation Co. placed another passenger steamer on the line between Chicago and Milwaukee, leaving their dock at the foot of Michigan avenue twice a day, at 9 o'clock in the morning and 8 o'clock in the evening. On the route between Chicago, Grand Haven, and Muskegon, another steamer will also be added, forming a daily line, and leaving here at 7 o'clock every morning.

The supply of ready tonnage was not large. There was a fair demand for vessel room on the basis of 3 cents for corn and 3¼ cents for wheat to Buffalo. Canal rates were steady at 5¾ cents for corn and 6 cents for wheat. Engagements made were for the most part line boats. To Buffalo, propeller Boston, wheat; H. E. Packer, wheat; H. J. Jewett, wheat; schooner American Union, corn. To Georgian Bay, schooner York State, corn; total 217,000 bushels.

The new steambarge Alice M. Gill, of Northport, arrived Friday morning, from Muskegon, with 375,000 feet of lumber. Captain George Robertson, formerly of the steamer Louie A. Cumming's, is in command, Byron Beerman chief engineer, Lawrence Kernell second engineer. She was built by the Grand Haven Shipbuilding Company, for Wm. Gill & Son, Northport, Mich., and is a very handsome and strongly built steambarge. Dimensions 125 feet keel, 28 feet beam, 10 feet hold, engine 22 by 26, by Bloecker & Company, Grand Haven, boiler 7½ by 14 of steel, by Johnson Bros., Ferrysburg. Her boiler house is cased with iron. She has a good sized dining room, kitchen, wash room and four state rooms aft. Wheel house and texas, captain's and mate's room forward. She has the American Ship Windlass Company's capstan, forward and aft, two anchors, the largest 1260 pounds, the other 700. She carries one mast and has wire rigging. Captain John Budge, of the Grand Haven Shipbuilding Company and Captain John Lang, of Chicago, who is having a similar steambarge built by the company, and Mr. Wm. Gill, her senior owner, came along on her first trip and were greatly pleased with her. Her machinery worked splendidly all the way over from Muskegon. WILLIAMS.

[*Continued on 4th page.*]

HISTORY OF LAKE NAVIGATION.

Written for the Marine Record.

CHAPTER XCV.

September and October, 1872, were quite disastrous months to lake shipping, many seamen and vessels being lost, in some cases entire crews going down with foundered vessels.

A record of the total losses during the month of September comprise the following: Propellers Galena and Detroit; tug Advance; bark Butcher Boy; brig Montezuma; schooners Courtland, B. R. Lummis, White Squall, Neshoto, Corsair. Summit, Phalarope, Lydia Case, Bapid (Canadian). Matthew McNair, George J. Whitney; scows Ned Robinson, Hirondelle, Granville, Ada; barges Baltic, John H. Drake, Table Rock, Hunter, Iron City, Adriatic. The total value of these vessels was $292,000 and the tonnage 8,616. The loss of life of sailors alone number 61.

The names of the vessels stranded, sunk, and rescued during the same time: Steamers Equinox, Benton, Annie Laurie, Jay Cooke; bark James C. King; schooners Cecelia, Dan Newhall, Mary Booth, York State, H. C. Hay, Morning Star, E. C. Roberts, Fisher, A. H. Moss, David Dall, Little Bell, Rebecca, Exchange, Van Valkenberg, Sweepstakes, Yankee Blade, W. H. Oades, Jas. Norris, Annette Davis, Nimrod, Annie B. Chambers, Fayette Brown, Southwest, Magdala, H. B. Rathbun, Hattie Johnson, Ardent, Pierrepout, Ferret, George Barber, Tricolor, O. Shaw, H. A. Richmond, Narragansett, Mary Nau; scows Agnes, Neil Cochrane, Cherubusco, Supply, Wake Up, Fenton, C. C. Butts, Ino, Curlew, Mary Ellen, Rush, D. Baker, Sea Bird, A. Lincoln, Kenosha, Saginaw, Wm. Treat, Harvest Belle, Detroit, Wyoming, Wolverine, Colorado.

The loss of the schooner George F. Whitney was a peculiar one. She must have foundered in mid-lake, as no one of the crew of eight men was ever heard of or the manner of her loss ever been known. Captain Carpenter was in command. A strange fatality seems to have hung over the Whitney for more than a year. She had been wrecked at Sugar Island, on a trip from Buffalo to Chicago in the fall of 1871, and was, in the spring of 1872, released and reconstructed, and on her first trip she was wrecked at Vermillion. The next voyage she was lost with all on board. It was said that while lying at dock at Chicago Captain Carpenter displayed all his flags at half-mast, the American ensign with union down. Upon inquiry why he did this the captain explained that it was merely an invitation to the tugs to transfer him up the river.

The barges Baltic and Adriatic, in tow of the tug Moore, parted lines in the gale October 1st, and both went down with their entire crews, off Long Point, Lake Huron. The crew of the Baltic consisted of six men and one woman, and that of the Adriatic of five men and two women. Captain John W. Vannerman, who commanded the Baltic, was a well-known master, and had been on the lakes thirty years; and Captain David Murdock was also a mariner of much experience. Both lived at Bay City. Both had hazarded their own lives to rescue their shipmates, and, doubtless, at this time, when peril surrounded them, made strenuous efforts for the safety of their charges, but without avail.

On the 6th Captain Roache, master of the schooner Harvest Home, while standing on an ore run at Marquette, looking down on his vessel, some forty feet below, fell and, striking the rail, rolled into the water and was instantly killed. He resided in Cleveland, Ohio, where his body was taken for burial.

Captain McAvoy's wife was drowned from the brig Montezuma during a violent gale on the north shore of Lake Erie. Her body was afterward found a few miles above Port Stanley, and the same day the body of another woman washed ashore at Port Brace. There were checks for $1400 on the person of Mrs. McAvoy.

On the 13th the passenger steamer Lac la Belle foundered, about twenty miles off Racine. She sprung aleak after leaving Milwaukee and the water gained so rapidly on the pumps that the fires were put out, leaving the steamer at the mercy of the waves. Four or five boat loads of passengers and crew left the wreck, one of which was mostly filled with ladies. The first boat load that arrived at Racine contained Peter Weller, M. Warner and wife, Robert Fogg, Louis Ochstein, Becky Campbell, the chambermaid, and Will Sanderson. The clerk of the steamer, W. Sanderson, who was in the first boat to land, gave an account of the disaster, from which the following is extracted: We landed six miles south of Racine after being twelve hours on the lake. There were five boats in all, two life boats, a yawl and two small boats. We got all the people into these with the exception of five or six men who refused to leave the vessel and who went down with her. There were on board 21 passengers and a crew of 32 all told. Two of the five boats arrived at Racine, the one I was in with seven persons, and the second engineer's boat with a crew of ten, one passenger and a boy, twelve persons in all. The captain's boat, which arrived in Milwaukee had four persons aboard. One of the other boats with ten people aboard was picked up by a schooner and one other containing thirteen people landed somewhere between Racine and Milwaukee.

The following is a complete list of those lost on the Lac la Belle: H. Freeman, N. W. Gilbert, P. Wyener, R. H. Lippincott, W. Smith Dunning, Henry Sparks, Henry Adams, second cook, and a man name unknown, who was working his passage. Those who perished did not care to trust themselves to the small boats in the tempestuous sea and went down with the steamer. The Lac la Belle was owned by the Engleman Transportation Company.

The propeller China, which left Kingston, Ont., on the 13 October, bound up having on board 300 tons of pig iron and a quantity of merchandise, when about fourteen miles out was discovered on fire and notwithstanding the efforts of the crew and assistance from two steamers, she was burned to the water's edge and sunk. All hands were saved. Loss about $30,000. Insurance $24,000.

The schooner Bessie Boalt went ashore at St. Joseph, Mich., broke in two and became a total wreck.

On the 14th while the schooner Madeira, of Oswego, was being towed out of the harbor at St. Catharines, four men were working at the anchor and one fell overboard. The others took a small boat to rescue him. The boat capsized and all were drowned.

A sailor named Thomas Ryder, was washed overboard from the schooner Morrison, near Port Colbourne and could not be rescued. Captain Geo. Arnold by a misstep fell on the rail of a barge at Fremont and died from the effects of the injury at Port Huron his remains were taken to Saginaw for burial.

A SAILOR'S LIFE AND DUTIES.

Written for the Marine Record.

BY C. M. FLYNN.

NO. II.

Before I end my explanations, it may be well to define a day's work, and to correct a mistake prevalent among landsmen about a sailor's life.

Nothing is more common than to hear people say: "Are not sailors very idle at sea? What can they find to do?" This is a very natural mistake, and being very frequently made, it is one which every sailor feels interested in having corrected. In the first place, the discipline of the ship requires every man to be at work upon something when he is upon deck, except at night and on Sundays. Save at these times, you will never see a man on board a well ordered vessel, standing idle on deck, sitting down, or leaning over the side. It is the officers' duty to keep every one at work, even if there is nothing to be done but to scrape the rust from the chain cables. In no state prison are the convicts more regularly set to work and more closely watched. No conversation is allowed among the crew at their duty, and although they frequently do talk when aloft, or when near one another, yet they always stop when an officer is nigh.

With regard to the work upon which the men are put, it is a matter which probably would not be understood by one who has not been to sea. When I first left port I found that we were regularly employed for a week or two. I supposed that we were getting the vessel into sea trim, that it would soon be over, and we should have nothing to do but to sail the ship; but I found that it continued so for two years, and at the end of two years there was as much to be done as ever. As has often been said, a ship is like a lady's watch, always out of repair.

When first leaving port, studding sail-gear is to be rove, all the running rigging to be examined, that which is unfit for use to be got down, and new rigging rove in its place; then the standing rigging is to be overhauled, replaced and repaired in a thousand different ways, and whenever any of the numberless ropes are wearing or chafing upon it, this "chafing gear," as it is called, is to be put on. This chafing gear consists of worming, parceling, roundings, battons, and service of all kinds, both rope-yarns, spun-yarn, marline, and seizing-stuffs. Taking off, putting on, and mending the chafing gear alone, upon a vessel, would find constant employment for two or three men during working hours for a whole voyage.

The next point to be considered is, that all the "small stuffs" which are used on board a ship, such as spun-yarn, marline, seizing stuff, etc., are made on board. The owners of a vessel buy up incredible quantities of "old junk," which the sailors untwist, and after drawing out the yarns, knot them together and roll them up in balls. These "rope yarns" are constantly used for various purposes, but the greater part is manufactured into spun yarn. For this purpose every vessel is furnished with a "spun yarn winch," which is very simple, consisting of a wheel and spindle. This may be heard constantly going on deck in pleasant weather, and we had employment during a greater part of the time for three hands in drawing and knotting yarns, and making spun yarns.

Another method of employing the crew is "setting up" rigging. Whenever any of the standing rigging becomes slack (which is constantly happening) the seizings and coverings must be taken off, tackles got up, and after the rigging is bowsed, well taut, the seizings and coverings are replaced, which is a very nice piece of work.

There is also such a connection between the different parts of a vessel, that one rope can seldom be touched without altering another. You can not stay a mast aft, by the back-stays without slacking up the head-stays, etc. If we add to all this the tarring, greasing, oiling, varnishing, painting, scraping and scrubbing which is required in the course of a long voyage, and also remember that this is to be done in addition to watching at night, steering, reefing, furling, bracing, making and setting sail, and pulling, hauling, and climbing in every direction, one will hardly ask, "What can a sailor find to do at sea?"

If, after all this labor; after exposing their lives and limbs in storms, wet and cold, the merchants and captains think they have not earned their twelve dollars a month, out of which they clothe themselves, and buy their salt beef and hard bread, they keep them picking oakum, ad infinitum. This is the moral resource upon a rainy day, for then it will not do to work upon rigging; and when it is pouring down in floods, instead of letting the sailors stand about in sheltered places and talk and keep themselves comfortable, they are separated to different parts of the ship and kept at work, picking oakum. I have seen oakum stuff placed about in different parts of the ship, so that the sailors might not be idle in the snatches between the frequent squalls upon crossing the equator. Some officers have been so driven to find work for the crew in a ship ready for sea, that they have set them to pounding the anchors (often done), and scraping the chain-cable. This kind of work, of course, is not kept up off Cape Horn, Cape of Good Hope, and in extreme north and south latitudes, but I have seen the decks washed down and scrubbed when the water would have frozen if it had been fresh; and all hands kept at work upon the rigging when we had on our pea jackets, and our hands were so numb that we could hardly hold our marline-spikes. Before leaving this description, I would state, in order to show landsmen how little they know of the nature of a ship, that a ship-carpenter is kept in constant employ, during good weather on board vessels which are in what is called perfect sea-order.

On Sabbath, when the weather is fine, the decks are washed down, the rigging coiled up, and everything put in order; and throughout the day only one watch is kept on deck at a time. The men are all dressed in their best, white duck trousers and red or checked shirts, and have nothing to do but to make the necessary changes in the sails. They employ themselves in reading, talking, smoking, and mending their clothes. If the weather is pleasant they bring their work and their books upon the deck and sit down upon the forecastle and windlass. This is the only day on which these privileges are allowed them. When Monday comes they put on their tarry trousers again and prepare for six days of labor. To enhance the value of the Sabbath to the crew, they are allowed on that day a pudding or, as it is called, a "duff." This is nothing more than flour boiled with water and eaten with molasses. It is very dark and clammy, yet it is looked upon as a luxury and really forms an agreeable variety with salt beef and pork. Many a rascally captain has made friends of his crew by allowing them duff twice a week on the passage home.

ENGINEERS WHO WILL NOT SAIL.

Special Correspondence to the Marine Record.

NEW YORK, May 10.

I am glad to see that Mr Miller and Mr. Steele have quit sailing and gone to work on shore. If you see either one of them will you please ask them if I can't get a place with them, and if I can, have them send me the money to reach Cleveland.

Omar Steele and Miller, too,
I think will sail no more;
For, by the wording of an "ad,"
I see they're employed on shore.

They'll build hulls and crank pins, too,
Pumps and shafts and all;
They'd repair the wheels of the cabin clock,
If the thing was not so small.

I am glad to see their new start in life,
And I know they will succeed;
And hope they will give to every boat
Good engines, and great speed.

For the lakes are bordered by a road,
Upon which speeds the iron horse;
And if boats would live where the steam cars are,
They must be fast, of course.

Mr. Editor, the above is poetry, and it you print it I will be much obliged to you, for seven papers have sent it back to me.

I have three places in view. One of them is teaching a summer school, another is to fire a tug boat, and the last one is lecturer in a dime museum.

THE SECOND ENGINEER.

MARVELOUS CHANGES.

WHAT THE FUTURE WILL BE TO THOSE WHO REFUSE TO BELIEVE.

Is this country unconsciously undergoing a wonderful change, is the change to take place before we are aware of the fact, and when it has taken place will we wonder why we did not see it before it was too late?

Those that see the changes early avail themselves early, and thereby receive benefit.

The shrewd iron man sees the iron interest transferred from Pittsburg and Pennsylvania to Birmingham, Alabama, and in his far-sightedness sees the furnaces in Pennsylvania torn down and deserted for this new and prolific field. It is claimed by the iron men of Alabama that the low price at which iron can be produced there will revolutionize the iron interests of the world.

We have seen the grain-growing centers of this country shifted to the west. We have seen the pork-packing industry flit from Cincinnati to Chicago, and from thence to Kansas City and Omaha. Southern cotton mills undersell New England and American markets, and challenge the world.

We have seen and are seeing all this take place before our eyes, and know that other changes are taking place equally as prominent, and we wonder as we behold them. Ten years ago the insurance companies only required an analysis of the fluids when they were taking insurance for very large amounts. To-day no first-class company will insure any amount unless they have a rigid analysis of the fluids passed, and if any traces of certain disorders are apparent, the application is rejected. In their reports they show that the death of sixty of every 100 people in this country, is due either directly or indirectly to such disorders. The Brompton hospital for consumptives, London, England, reports that sixty of every 100 victims of consumption also have serious disorders of the kidneys.

Among scientists for the treatment of this dread malady the question is being discussed:

"Is not this disorder the real cause of consumption?"

Ten years ago the microscope was something seldom found in a physician's office; now every physician of standing has one, and seldom visits his patients without calling for a sample of fluids for examination.

Why is all this? Is it possible that we of the present generation are to die of diseases caused by kidney disorders, or shall we master the cause by Warner's safe cure, the only recognized specific, and thus remove the effects? All dealers keep it. It is within the reach of all. It is established beyond a doubt that a very large percentage of deaths in this country are traceable to diseased kidneys. For years the proprietors of Warner's safe cure have been insisting that there is no sound health when the kidneys are diseased, and they enthusiastically press their specific for this terrible disorder upon public attention. We are continually hearing its praises sounded.

This means wonders!

Cannot the proprietors of this great remedy, who have been warning us of the danger, tell us how to avoid a disease that at first is so unimportant, and is so fatal in its termination? Are we to hope against hope, and wait without our reward?

The most significant of all changes, however, that we of to-day can note in this radical change of view to which the public has been educated: It was formerly thought that the kidneys were of very small importance; to-day, we believe, it is generally admitted that there can be no such thing as sound health in any organ if they are in the least degree deranged.

LINES AND HAWSERS.

Captain Clarke, of the Erie life saving station, has enlisted the old crew.

Michigan City lumber shovers have organized and adopted the Chicago scale of prices.

To find the breaking strain of a hemp rope in tons, multiply the circumference by .28;

Work has been commenced upon the new coal docks at Manitowoc. The apparatus is to be run by steam.

The valuation of lumber which will be shipped this season from the Georgian bay district to Michigan, is estimated at upwards of $700,000.

An expedition from Cheboygan will probably release the schooner City of Sheboygan, sunk near Detour since last fall. The vessel is said not to be broken up as reported.

The propeller Europa which was burnt some time ago, and afterwards purchased by the M. T. Co., has been rebuilt and converted into a lake barge. She has been christened the Regina.

The new tug William Stevenson, built for Hinston & Woods at George H. Notter's yard, Buffalo, was successfully launched on the 25th ult. She is 57 feet over all, 14½ feet beam and 6½ feet hold.

The schooner Cataract, sunk off Long Point, Lake Erie, thirty years ago with a cargo valued at $22,000, will be looked for by a wrecking party from Chicago this summer, and if possible reclaimed.

The tug Duncan City released the schooner James F. Joy, stranded opposite Cheboygan while under sail bound up. The spot she struck is a twelve-foot shoal not down on the chart, and known to few about here. The vessel received no injury.

Already this season there have been no less than eighty-one casualties on the lakes, with damage to hull and cargo as follows: 14 collisions, $23,100; 17 disabled, $10,700; fire, $3,300; lightning, $300; sprung a leak, $62,600; stranded, $8,000; heavy weather, $2,300; ice, $10,300; total, $120,600.

The Duluth Herald says: The late Mr. Eads proposed to construct a ship railway across the Isthmus of Panama and many believed in the feasibility of the project. It would only require about a mile of transit to make the Sault ste Marie canal available, and if the government is going to tinker on it for ten years, a transit is in order with the improved hydraulic facilities that are now nearly perfect. Wonders can be done in lifting enormous masses of dead weight. The project is worth trying, provided it is undertaken in the spirit of the old Scotch song "Whatever men dare they may do."

H. D. COFFINBERRY, PRES'T. ROBERT WALLACE, VICE PRES'T. WM. M. FITCH SEC'Y.

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We have associated with us Messrs. H. D. Coffinberry and Robert Wallace, late of the Globe Ship-building Co., and the Globe Iron Works, and Wm. M. Fitch, late of the Winslow Line of Steamers. We have made the following appointments: Mr. O. N. Steele, Assistant Superintendent; Mr. Thomas W. Bristow, late foreman of Wyandotte Ship Yard, Superintendent of Ship Yard; Mr. Quincy Miller, Superintendent of Boiler Shop; Mr. John Stoney, Superintendent of Foundry, and Mr. Jas. C. Wallace, Draughtsman.

We purpose building Iron and Steel Vessels of all descriptions, Marine and Stationary Engines and Boilers, Blowing Engines, Steam Helve Hammers and such other work as our large assortment of patterns eminently qualify us to build, at a minimum price.

Your patronage is solicited, and we trust that the excellence of our work, with fair dealing and strict attention to business, will secure its continuance.

THE CLEVELAND SHIP-BUILDING COMPANY.

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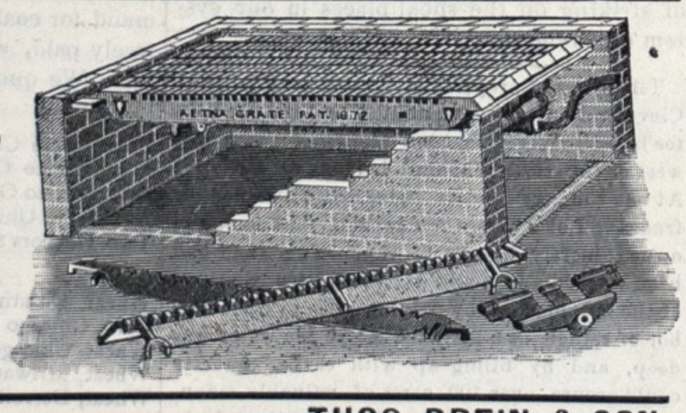
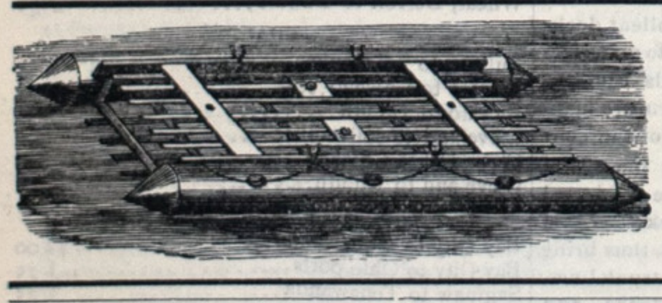


Globe Iron Works, Manufac's.,
Office and Foundry, corner of Elm and Spruce-sts., CLEVELAND, O.



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Commencing Sunday, Nov. 14 1886 at 5 o'clock p. m the time given in the figures below is the new standard (Ninetieth meridian) time, which is thirty-three minutes slower than Cleveland time proper.

Eastward.	Arrive	Depart.
No 4, Fast Limited Express	*2 55 A M	*3 05 A M
No 8, N Y, B & A Express	*8 25 A M	*8 55 A M
No 26, Elyria Accommodation	†7 45 A M	.....
No 24, Buffalo Ac'm via Sandusky	†10 30 A M	†10 45 A M
No 24, Toledo Accom via Norwalk	†10 30 A M	†10 45 A M
No. 10, New York "Flyer"	.....	*12 noon
No 12, N Y & B Fast Express	*2 10 P M	*2 45 P M
No 2, Night Ex via Norwalk	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky	†9 40 P M	.....
No 26, Conneaut Accommodation	†4 25 P M	.....

Westward.	Arrive.	Depart.
No 1, Fast Limited Express	*12 15 A M	*12 25 A M
No. 23 Cleveland Express	*2 15 A M	
No 3, Chicago Express via "	‡5 20 A M	6 35 A M
No 25, Mich Accom Norwalk	.....	†6 30 A M
No 21, Toledo Ex via Norwalk	†12 50 P M	†3 20 P M
No 5, St Louis Ex via Sandusky	*10 45 A M	*10 50 A M
No 9, Chi Pac Ex via Norwalk	*6 15 P M	*6 40 P M
No 31, Elyria ac to Elyria only	.....	†4 30 P M
No 27, Conneaut Accommodation	†8 10 A M	.....

Sunday train for Nottingham—Depart 8:15 a. m and 1:45 p. m.; returning, leave Nottingham at 8:50 a. m. and 3:45 p. m.

Reference marks—* Daily, † daily, except Sunday, ‡ daily, except Monday.

A local Cleveland and New York sleeper and dining car daily on No. 10, leaving Cleveland at 12 noon; arrive Grand Central depot, New York, 7.30 a. m.

For full information as to trains and connections apply at the Union ticket office, corner Bank and Superior streets, under Mercantile Bank.

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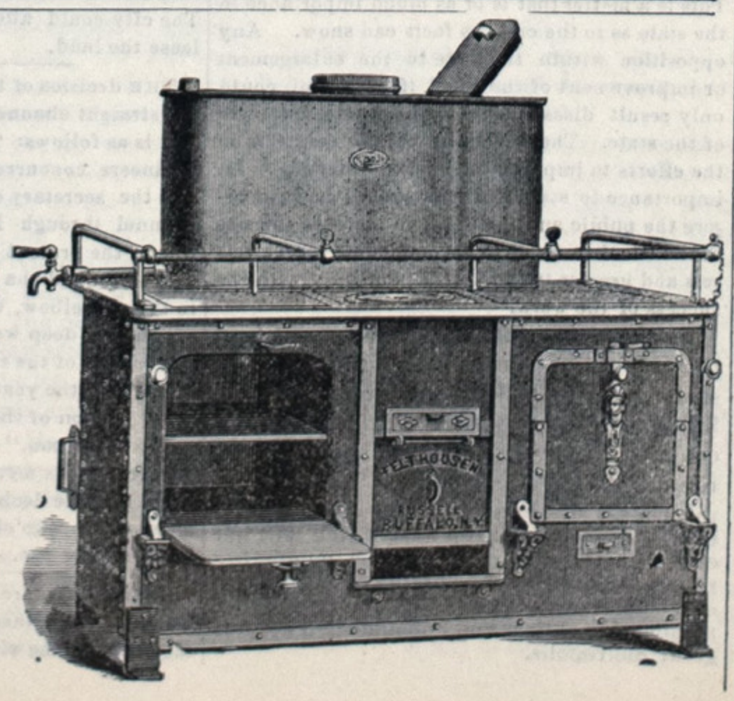

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Subscribers and others are respectfully invited to use the columns of the MARINE RECORD for the discussion of pertinent topics.

Entered at the Post Office at Cleveland as second-class mail matter.

CLEVELAND, O., THURSDAY, MAY 12.

WILL THEY DISCRIMINATE?

As regards the competition on the lakes, Deputy Roilroad Commissioner Ransom, of Michigan, in response to a letter from Secretary Moseley, of the interstate commission, asking for information as to the necessity for granting certain railroads in the state of Michigan relief from the operation of section 4 of the interstate commerce law, in order that they may be able to meet water competition at certain points, writes:

"In the general interest of our people I would say suspend the rule during the season of navigation and enforce it while navigation is closed. If you suspend the operation of the 'long haul' rule at lake points it will give the shippers at lake competing points a far better rate than they could secure were the vessels given a practical monopoly of the trade by a strict application of the rule."

Who has ever heard of the railroad corporation that objected to a monopoly of trade if in its own interest? "In the general interest of our people" may possibly mean the people of the state of Michigan, but it is more likely that the commissioner had in mind the railroad people, and if it is the right thing to suspend the action of the section bearing on competition during the season of navigation, the one period during the year that railroads do not have a monopoly of the traffic, then the commission itself declares the section inoperative, and the law should be repealed, as it will in its present guise work no good to any one except the commission and the officers of the railroads. It is a notable fact that the railroad magnates and their attorneys did not oppose it, neither did the government. It would, therefore, not cause us great surprise if the government should use its surplus and gradually acquire the through railroad systems of the country.

It is a pleasure, then to note that the commissioners have declined to suspend the long and short haul section for the northwestern railroads. The Lake Carriers' Association has certainly aided in bringing about this very desirable result. It has actively opposed, from the date the law went into operation, any suspension of section 4 until some necessity for it was clearly apparent, and has exchanged correspondence with the commisssion on the subject. Pursuing this policy it recently opposed the application of the Wisconsin Central road for relief from the provisions of this section. It believes the intention of congress was that the long and short haul provision should have a fair trial. Congress did not mean that the commission should at once set section 4 aside, make it inoperative, and permit the carriers to pursue exactly the same unjust practices that caused the enactment of the law. It is unfair to the local districts, and the large share of the public residing there, for the railroads to be permitted to exact extortionate rates from the local trade, so as to favor distant competitive points. Also, congress undoubtedly, though accidentally, meant to protect shipping interests from this illegitimate competition of the railroads that has almost ruined the carrying business of our water routes. There is no reason why the railroads should be allowed to make rates to meet water competition which they are not willing to offer to their local patrons. This action of the commissioners is full of promise.

ERIE CANAL AND COMPETITION.

The inter state commerce bill, before it becomes a working power, will be like a jug, the handle on one side, the railroad side. This is the view expressed in these columns since the compromise bill was passed by congress, and a commission appointed, the members of which were left to their own will to interpret the meaning of the law and their own logic to declare that under certain circumstances the principal clause in the bill, section 4, should be made inoperative. That railroads can not compete with water routes in cheapness of transportation is a well known fact, and many of the roads discovered to their satisfaction that they could not ruin the lake carrying trade without throwing themselves into bankruptcy and were perforce compelled to give up the struggle. It is also a known fact that where there was water competition a limited number of months in the year the railroad pools would reduce their rates of transportation during those months, and as soon as the icy barriers were placed on navigation the rates would rise like a balloon, local traffic being obliged to pay the cost of the scaling.

It has been said that Erie canal boatmen have lost during the present season $80,000 which they might have earned if there had not been so much detention in opening the canal, but this is denied by canal and railroad officials on the ground that all the grain to go east during the earlier spring months had been contracted for by the railroads. It may be understood that if such is the case the rate was on the basis of canal rates. Thus it will be seen that a federal law regulating interstate commerce should not be made inoperative. In commenting on the rivalry for traffic existing between water and rail routes, the New York Maritime Register says:

"Through legislation and by other means railroads have been able to divert traffic to themselves, pocketing the loss that came from direct competition with water routes in order to hold a supremacy that in the end gave them the most advantages. By killing off this rival, the railroads would have the whole field to themselves and the commercial public would be at their mercy. But although the struggle has been long and severe, the prospects now are that transportation by waterways will increase hereafter, provided that due regard is given toward retaining the old advantages of these routes and improving them. In the case of this port its great waterway to the west, the Erie canal, is of more importance than ever. That canal did more than any other factor to give New York its prominence as a port. And it is no exaggeration to say that it is almost essential to secure the continuance of the lead which the port now holds in the commerce of the country. Whatever can be done, therefore, to increase the usefulness of this waterway, should be carried out as a matter of course. The prospects for traffic on the canal during the coming season are better than ever, as New York will find to its benefit before navigation closes again. The interstate commerce bill will affect favorably the business of the canal, but more will be gained by improving the canal itself. This is a matter that must be kept before the people of this city until it is settled. What changes may be caused by the inter-state commerce bill can not now be foretold, and New York may or may not find trade diverted from it to other ports through the agency of the new law. But in the event of the improvement of the canal, this city would have one help toward holding trade that would more than counteract any efforts put forth by rivals. This is a matter that is of as much importance to the state as to the city, as facts can show. Any opposition within the state to the enlargement or improvement of the canal, if successful, could only result disastrously to the whole interests of the state. There should be no cessation in the efforts to improve this great waterway. Its importance to state and port should be kept before the public and the effort to increase the size of the canal in order to accommodate larger vessels and greater traffic should stop only with the success of the work."

In case the opponents of the canal (and they are in the interests of the railroad) shall succeed in defeating every measure brought before the state legislature, and in congress, if governmental aid is sought, the result will be to deprive New York city, in the course of time of a through means of transportation from the west which will but enure to the advantage of the competing railroads and turn the volume of produce to other ports, thus restricting the supply demanded for export and consumption at that great metropolis.

IRON FOR SHIPBUILDING.

It is too early to have reached perfection in the construction of vessels of iron on the lakes or to have obtained the full data as to their performance or life time; but there are gradually accumulating the materals from which some deductions may be drawn in the future respecting the length of life of iron or steel steamers. Although the range of years and scope of numbers is not yet large enough to afford sufficient facts to enable the owner or insurer to judge with accuracy, it is by experience that errors in estimating the proportions of different risks may be detected. Every discovery of facts, therefore, made through experience, is a service to maritime commerce.

It will be remembered that we printed, some weeks since, comments from the London Marine Engineer, on the experience gained by some of the owners of British built ships by "their mysterious disappearance, foundering in mid-ocean, giving as the cause that such danger arises from the gradual corrosion of plates of the hull under the bottom, where it would not easily be seen. Under the new conditions it must be remembered that the thinness of a ship's plate causes a very small amount of corrosion to absolutely destroy the whole of the cohesion and strength of the plate, should it occur. Iron and steel are very sensitive to the action of many acids, the resulting oxides or salts being invariably without tenacity or strength. The cement backing to the plates is for the purpose of protecting the interior of the plates from the action of any such acids, and from wear and tear."

Although the quality of material used in building iron vessels was, at its inception in Great Britain (when doubts were entertained as to its servicability), of the best kind of material, it is impossible that in the course of thirty years a great deal of bad iron should not be used in shipbuilding, and the question as to the comparative merits of wood and iron vessels has been discussed in shipping circles with more or less interest ever since the first iron ship went to sea. While it is generally acknowledged that iron is the better material of which to construct screw steamers, it does not appear to hold the same relative reputation in respect to sailing vessels.

There is no reason why iron or steel steamers or sailing vessels on the lakes should not live a hundred years and still be in good condition if well taken care of, as they have not the same destroying influences at work upon their plates that ocean going vessels have. It has been said different acids and salts destroy the iron plate as dry rot will destroy the timbers of the wooden ship. An advantage that the large iron ship of the present time actually possesses is that, being lighter and built much larger, they are enabled to carry large cargoes of 2,800 to 3,000 tons on a smaller draft of water, and have, in consequence much less danger of striking on the shoal places in our system of navigation.

THE titles of property along the lake front at Cleveland have been examined and the committee has discovered that the lake front for a mile west of the river channel belongs to the city. At one time the land extended some distance out from the Lake Shore tracks, and that company owned merely a right of way. This land had been washed away, and the committee was now of the opinion that by driving piles into the harbor of refuge, at a distance where the water was deep, and by filling up with earth, the city could secure over 100 acres of valuable manufacturing property, and a mile of excellent dockage. This would be of great benefit to manufacturers, for furnaces and rolling mills could be built close to the ore docks. Experts are making estimates on the probable cost of the contemplated improvements, and upon the cost of opening the river channel. If the projected belt railroad was ever built, Mr. Lockwood said it could run near the new docks, and thus bring manufactories in connection with all trunk lines. The city could afford to build the docks, and lease the land.

THE decision of the board of engineers locating the straight channel has been received at Toledo and is as follows: "The decision of the board of engineers concurred in by the chief engineer and the secretary of war, is that the straight channel through Maumee bay shall follow the line of the present crib range. That is, the portion of the old channel from the black can elbow to the crib elbow, will be utilized and extended outward to deep water in the lake and inward to the mouth of the river. The board also determines that the year's work shall be done on the inner portion of the channel from Presque Isle to the black can." It is expected that contracts for the portion mentioned will be let on or about June 1. The decision, as a rule, pleases the old marine men who claim that the channel selected is the proper one.

OUR thanks are due Charles E. L. B. Davis, Captain of Engineers, for a map of part of Portage lake in the vicinity of Houghton and Hancock, Mich., from surveys made in October and November, 1886, by G. A. Marr, assistant engineer, under the direction of the board of engineers, Col. Henry L. Abbot, Major C. H. Ernst and Major Chas. J. Allen. The map is very complete, even to soundings. The survey was made for the purpose of establishing and maintaining the harbor lines and to prevent the destruction of the through routes of communication across Keweenaw Point.

A GENERAL conviction that the personal comfort, if not safety, of every one may be promoted by a fore-knowledge of the weather, and a growing desire for such instruments as enable observers to foretell meteorological changes, has prompted Howard H. Baker & Co., Buffalo, to compile from the best known authorities, some of the leading rules governing the use of aneroid barometers, together with the more marked signs or weather guides and other information, which they furnish on application.

A PILOT'S license has been issued to Mrs. Louise Daniels, wife of the captain of the schooner Water Lily of Lake Champlain. Mrs. Daniels passed a creditable examination. She has an experience of ten years on the lake and will be pilot of the Water Lily.

THE commission appointed by the Lake Carriers' Association to arbitrate the Lycoming-Jewett case, composed of Messrs. James Millen, Thomas Wilson and S. D. Caldwell will meet tomorrow morning in Buffalo.

NOTICE is given that the light at Green Island light station will be changed from a fixed white varied by a white flash every two minutes, to a fixed white varied by a red flash every minute.

THE IRON RANGE SALE.

From official sources it is learned, says the Duluth Herald, that while the terms of the Duluth & Iron Range sale are private a large portion of the stock of the Minnesota Iron company, carrying with it the stock of the Duluth & Iron Range railroad, has been sold to H. H. Porter of Chicago and a syndicate of Chicago, Cleveland and New York capitalists. The intentions of the parties buying as stated by Mr. Porter are to make large railroad developements in Northeastern Minnesota, extending the main line in the Iron Range road to a future connection with the Canadian Pacific, and building branch roads from it to any portion of the mining country that needs development. Next season the syndicate will probably build additional ore docks at Two Harbors, where the present ore docks now are. In a general way the aim of the syndicate will be to develop the iron ore belt of that section of the state. It will all be made tributary to the Iron Range road. The gentlemen in the pool represent $10,000,000 cash capital, for use in the contemplated developments.

LAKE FREIGHTS.

The tone of the market is firm and stronger, with a tendency to higher rates on grain, coal and lumber, coal showing an advance of 10@15c, with a good demand for tonnage. The feature of the market is the active demand for coal carriers at Buffalo, 75c being freely paid, with some tonnage holding for 80c. We quote:

ORE.	
Escanaba to Chicago	$ 95c
Escanaba to Ohio ports	1.35
Marquette to Ohio ports	1 60
Ashland to Ohio ports	2 15
Two Harbors to Ohio ports	2 20
GRAIN.	
Wheat, Duluth to Buffalo	6@6¼
Corn, Chicago to Buffalo	3@3¼
Wheat, Chicago to Buffalo	3¼c
Wheat, Milwaukee to Buffalo	3½c
Wheat, Detroit to Buffalo	2¼c
COAL.	
Buffalo to Milwaukee	75c
Buffalo to Chicago	75c
Buffalo to Duluth	75c
Cleveland to Milwaukee	80c
Cleveland to Chicago	85c
Cleveland to Duluth	80c
LUMBER	
Bay City to Tonawanda	$2 00
Bay City to Ohio ports	1 75
Saginaw to Tonawanda	2 25
Saginaw to Ohio ports	2 00
Muskegon, to Chicago	1 50
Alpena to Tonawanda	1 75

VESSELMEN AND CAPTAINS,

Please bear in mind, that the undersigned firm, established since 1866 in this city, are making a specialty of supplying vessels with ☞ *Comfortables, Blankets, Table linen, Towels* etc., and sew *to order* ☜ at the *shortest notice, Sheets, Pillow cases*, etc., and any necessary equipments for bedding. Also, are we the only manufacturers in this *city* who *retail* direct to the consumer all kinds of ☞ *Flannel Shirts*, double and single-breasted, real home-made in size, fit and sewing, *Overalls, Jean Pants*, or make them ☞ *to order* ☜ for the same price as we sell our ready made garments. ☞ Our *new cutter* ☜ takes measures for the most stylish *Cassimere Suits, Wedding Suits*, etc., and guarantees the best fit for the lowest prices, because he wishes to advertise himself and has *no expenses*, being in our store, free of rent. *Kohn & Co.*, 213 Detroit st., near corner Pearl st., Cleveland, O.

[*Around the Lakes Continued from 1st Page.*]

WYANDOTTE.

Special to the Marine Record.

The composite steamer Fayette Brown will be launched from the Detroit Dry Dock Co.'s shipyard, Wyandotte on Saturday, the 14th at 10 A. M. Her dimensions are length on waterline 250 feet, over all 266 feet, beam 40 feet outside frames, 41 feet outside planking, moulded depth 21½ feet. She is differently constructed from anything yet built. She has three strakes of iron top sides, and is planked below those by 6-inch oak plank. All her constructed parts are of iron; underneath the planking on the bilges runs a strake of iron plating 3½ feet wide, to which connect a system of diagonals, fastened to the bottom of the top cord. Her floors are 27 inches deep and ⅝ths thick. She has a continuous center keel plate, and a pair of intercostals. On top of the floors are the center and two sister keelsons. She is strengthened by four water tight bulkheads, and a sufficient number of web frames. The appliance of her center board box for an iron vessel will be an experimental one. The center board is arranged forward of the fore hatch and only extends as far up as the orlop deck beams, which deck consists of 8 inch I beams, without planks except aft near engine and boilers, where an iron deck for coal bunkers is laid. The upper or spar deck consists of 7-inch bulb beams, planked with 4-inch pine, diagonally strapped. The hatches are arranged in pairs, having an iron stringer, 4 feet wide, in between. A special hatch is provided, between engine and boiler, to facilitate trimming. Her machinery will comprise triple expansion engine 20, 30 and 52x40 stroke, boilers of Scotch type 11x11 each, having two 40-inch furnaces, calculated to stand pressure of 150 pounds. Steam steering and hoisting gear and the American Ship Windlass Co.'s steam capstan and windlass. She will carry three masts with fore and aft sails. Her cabins, engine room, etc., will be fitted with the best modern improvements. She is being built for Captain E. M. Peck, of the N. W. T. Co. Her designer is Fred Ballin, of the Detroit Drydock Co.

SAND BEACH.

Special to the Marine Record.

Monday, May 2nd, the storm signal was flung to the breeze the first time this season. On Tuesday the tug Ada Barrett was delayed here by a heavy fog; the steamer Tecumseh and consort returned to the river to repair damages, caused by collision with the City of Alpena.

The schooners Laura Sims, C. Hart and N. P. Goodell sought refuge here during a heavy southwesterly gale, also the Lula Whiting, Helen, and tug Daisy Lee.

The schooner Emeu came to the dock and discharged a cargo of coal and took on a load of hay and feed and departed for Alpena.

The light house supply steamer Warrington, stopped Friday and landed coal and supplies for the light house for the ensuing season.

Commander Horace Elmer investigated some changes preferred against the light keepers, but the result is unknown. It is to be hoped that keeper Trescott came out with flying colors.

Saturday the steamer S. E. Curtis came in and unloaded the first installment of timber for the harbor of refuge. The propeller B. W. Arnold run out of coal on her trip down and stopped in to replenish her stock.

LUFF.

AHNAPEE.

A fireman on board the steamer Corona, named John P. Johnson, died suddenly as the boat was entering this harbor Friday morning. Just before reaching here they aroused him to take his watch, when he was seized with a fit of coughing, and died in a few minutes. He was about 40 years of age, of medium size, and had a light beard and mustache. His home is unknown, but is thought to be Moreland, Ill., as a letter of recommendation he carried with him was dated from that place.

DULUTH.

The Alta and Alcona which have been lying at Sargent & Buckley's dock for some time past, says the Herald, started out about 1 o'clock Friday for Buffalo. A couple of tugs escorted them out into the lake. Both are loaded heavily with wheat. The officers deserve credit for their enterprise in starting out in the teeth of all the bristling reports concerning the ice.

The Stewart, on her way back from Two Harbors, sighted the Siberia. The latter was under full headway and to all appearances, was working beautifully.

The Eviston, of the Booth line, started for Barque Point last Thursday with a load of fishermen's supplies.

The T. H. Camp started on her first voyage up the north shore after fish.

The H. F. Brown, of the Palmer line, is undergoing some little repairs. She will also be engaged in the fishing trade and will cruise along the south shore during the season, with headquarters at Bayfield. She will run down to Duluth every two or three weeks, but the fish will all be unloaded at Bayfield.

The steel steamer Spokane of the Wilson Transit line was the first lower lake boat to arrive at this port this season, making her appearance May 7, with a cargo of coal.

No work has thus far been done on the government dredging, but it will begin just as soon as the engineers have completed the soundings and preliminary surveys. The contract calls for a commencement of the work by May 15, but it is probable that there will be work done several days before that time. William, Upham & Company, are doing some private dredging at present, but will not have a full force at work till the large contract is begun. Surveys are being made by the government engineers of St. Louis bay, Superior bay, and Agate bay, as well as the Duluth harbor, and there has necessarily been some delay in getting things into shape for work.

Charters for 300,000 bushels of wheat at 6 cents were made yesterday to load next week. For boats to load this week the rate is 6½ cents.

BUFFALO.

The schooner Homer, sunk in Georgian Bay with 35,000 bushels of corn, is insured in the hull pool. Her cargo is insured for $13,000--$6,000 in the Continental, and the rest in the Boston Marine and British American. Captain John Rice has gone to look after the cargo. Five thousand bushels have been taken out dry. The rest is wet. She will go in Detroit drydock for repairs.

The Canadian schooner Neelon, sunk in Georgian Bay, is insured entirely in Canadian companies.

The propeller Saginaw Valley, bought last winter by Tyler, Galvin & McDougall, of this city, has been chartered for the season by the Lackawanna, with which it will run in connection, carrying passengers and package freight between Buffalo and Green Bay. Captain James Gibson, lately local hull inspector, will command her.

Receipts for the week: Wheat, 1,426,634 bushels; corn, 2,073,415 bushels; flour, 87,848 barrels. Clearances: Coal, 51,040 tons; railroad iron, 2,800 tons; cement, 5,840 barrels.

The Express says: The number of grain cargoes that do not come out even at both ends of the trip is creating some talk. There have been several good-sized discrepancies. The worst one was that of the propeller Havana, which was 595 bushels short. The overruns include the Mattie C. Bell, 43 bushels; John Shaw, 78 bushels; E. C. Hutchinson and H. S. Pickands about 200 bushels each.

Chief Engineer Learmouth, it is said, figures the Susquehanna's damages at about $15,000. She will be temporarily repaired at Chicago, and fixed up here.

J. G. Muir has been made master of the schooner J. T. Johnson in place of John Spry.

The organization of the Elevating Co. has been effected, with little or no change of directors or officers from last year. No change of rates has been made. The Frontier has been received into the company and it is arranged for the Coatsworth to join as soon as she is ready.

Hingston & Woods have two dredges at work on the bars in the creek. They state that the deposit is four feet deep in some places. The whole of the appropriation is expected to be used up before the job is thoroughly done.

Coal freights were strong. Brokers were asking an advance for vessels to arrive. Charters: Propellers Syracuse, Juniata and schooner Mary Lyon for Chicago at 75 cents; propeller W. M. Egan for Milwaukee at 75 cents; schooner Cheney Ames for Kenosha at 90 cents; propeller G. T. Hope for Duluth at 75 cents; Wocoken for Washburn at 75 cents. Canal freights unchanged but weak.

MARQUETTE.

The tug Mollie Spencer, arrived here on Tuesday, from Duluth, Captain Lynn reports encountering the steambarge Bessemer, ore laden, about thirty miles east of Otter Island at 10 a. m., Friday, blowing signals of distress. The ice was thick and the tug could not reach her until 2 in the afternoon. The Bessemer's bow had been stove in by ice, and she made 39 inches of water in eight minutes after the accident. When the Mollie Spencer reached her she was down by the head and the water was nearing her decks. Captain Lynn says Chamberlain, second mate of the Bessemer, saved the steamer from foundering by a daring act. He took a pair of blankets, had himself lowered over the bow until he was in the icy water up to his neck; then taking the blankets between his feet he got them down by the hole and the suction drew them in, filling it so the pumps kept her free. Five hundred tons of her 1,200 ton cargo were thrown overboard, lightering her greatly. The Mollie Spencer stayed by her until Monday afternoon, when she had got her out of the ice. When Captain Lynn left her she was making her way to the Sault ste Marie. He then came in here for coal. The Bessemer belongs to Leopold & Austrian, of Chicago. Captain Lynn reports heavy ice from Duluth to Ontonagon, and the ice tore some of his irons off, but the damage is light.

MILWAUKEE.

Official notice was received here Wednesday that the government had abolished the fee heretofore charged for reporting and clearing, besides all other fees heretofore charged vessel owners.

The tug Charnley, from Chicago, is in here repairing a broken eccentric. The Cumberland completed repairs and got away yesterday afternoon.

The schooner James C. King had a plank in her bow stove in by the ice in the straits Tuesday. By shifting her cargo aft temporary repairs were made.

The Milwaukee shipyard company is to build at their yard a stationary dock 315 feet long, to cost $60,000.

WEST BAY CITY.

Special to the Marine Record.

The new steamship Roumania, built at Davidson's yard for Captain Jas. Corrigan and John Huntington, was launched on the 7th inst. She is 300 feet over all, 281 feet keel, 40 feet beam, and 22 feet depth of hold, and is calculated to carry 2600 tons, fourteen miles per hour on 100 tons of coal the round trip between Chicago and Buffalo. She is fitted out with very fine accommodations forward for the officers and crew, and has also three elegant spare rooms for guests. All the rooms will be heated with steam. The dining rooms, pantry, and mess room are very handsomely fitted up. The engineers and firemen's rooms will be between decks, aft of the engine and are provided with every comfort and convenience. Her machinery consists of triple expansion engines, built by Samuel F. Hodge & Co., of Detroit. The high pressure cylinder is 21 inches, intermediate 32 inches, and low pressure 54 inches with 48 inch stroke. She has two steel boilers of the Scotch type, built by the Lake Erie Boiler Works, Buffalo, of ⅞ths inch steel, 10½ by 11½ feet and allowed 160 pounds of steam to the square inch. She has the American Ship Windlass Co.'s improved bed plate steam windlass, steam capstan forward and steam capstan on the quarter deck, worked by two 8-inch engines, which will enable one man to do the work of twenty-five. Captain Reed, last season on the Australasia, will sail her.

FRANKFORT.

Special to the Marine Record.

On the 7th the steambarge Edward Smith with four barges, Robert L. Fyrer, Seldon Marvin, John W. Haneford and Reindeer, arrived at this port to load lumber for Tonawanda. This is the largest fleet of barges ever loaded here.

The tug John Gregory, while out on Lake Michigan on Wednesday, blew out a hand hole plate. The entire boat was enveloped in clouds of steam, making it almost impossible to breathe. Distress whistles were blown, in answer to which the new Frankfort life saving crew, Captain Matthews, were initiated. They were alongside in a very short time, closely followed by the tug Hannah Sullivan, and the disabled boat was towed inside where the damages were easily repaired. The distress whistles caused quite a commotion in the village, and the report was spread that the tug was on fire, causing crowds of citizens to gather at the lake front. Captain Bates, of Cleveland, A. E. Banks, and your correspondent were on board, but got off with a good steam bath. The Gregory started for Cleveland, her new home, on Thursday.

Steam yacht Inez disabled her engine Friday, and the life saving crew and tug Slyfield brought her inside.

Captain Beffell, of the wrecking schooner Experiment, found the body of a sailor in the wreckage of the Menekaunee. There was nothing to identify the same. Verdict of jury: "Unknown, drowned off barge Menekaunee or Marinette, last November." The remains were buried here.

Tug Sweet Bros. arrived from St. Joseph to engage in fishing here.

BURMEISTER.

SARNIA.

Letters patent have been granted the Sarnia Tug and Transit Company, with a capital of $60,000.

The rival freight carriers, the steambarges Albany and H. J. Jewett, the former a Detroit built boat and the latter a Buffalo production, as has been their custom during the past three years, opened the season with a race from Chicago to Buffalo. Passing here on Tuesday last the Jewett was about five minutes ahead, and both vessels were working for all there was in them. Before Detroit was reached the Albany had overhauled her competitor and was leading 6½ minutes, or about 1¼ miles when passing the foot of Woodward avenue. Both had on full cargoes, the Albany loading about 400 tons more than the Jewett. The Albany carried off the honors last year, making the most trips and consuming the least fuel proportionately of any of the larger steam craft.

DETROIT.

C. G. Lincoln, of Chicago, bought from the underwriters last Tuesday the Canadian passenger steamer Manitoba. He intends putting her in running condition, and use her as an excursion boat at Chicago, if the government will consent to enroll her as an American bottom. The Manitoba measures 524 tons and formerly was employed in the passenger and merchandise trade between Sarnia and Duluth. Late in the fall of 1883 she was wrecked near Kincardine. At that time she was valued at $36,000. The following spring she was released and towed to Detroit, where she has since laid. Her owners refused to accept the wreck, claiming that the steamer was a constructive total loss, and after much litigation the underwriters were obliged to pay the full value of the policies. She was insured in the Union of Philadelphia, State of Pennsylvania, and Thames & Mersey. General Manager Craven of the Union, now in Chicago, represented the underwriters at the sale.

The tug John Martin, owned by the Detroit drydock company, has been repaired at a cost of $4,000 in the Springwell drydock and will be engaged during the season in river towing.

Late charters reported are the schooners Bell Hanscome and William Home for three cargoes each, coal, Toledo to Manitowoc, 80 cents, and the propeller St. Magnus, wheat, Detroit to Montreal, 6½ cents.

The double ender ferry steamer building by the Detroit drydock company, is being pushed along rapidly.

Craig & Son's new steamer Gettysburg was launched at Trenton last Saturday.

The Detroit & St. Clair river towing association elected S. B. Grummond president and resolved to continue last season's rate for towing. For raft towing $200 will be charged.

The new steamer being built at Wyandotte for the Northwestern Transportation Company will be called the Fayette Brown.

The Chamberlain McGowan suit, over a dispute as to their respective shares in the profits of the barge Pratt and schooner Victor, has been settled out of court, and the vessels sold to S. A. Murphy, of Detroit.

SAULT STE MARIE.

May 4, 1887, says the Chippewa County News, just as the hands of the many watches held by the interested spectators indicated nine o'clock the great iron dipper of one of Hickler & Green's large dredges, dropped into the canal at the head of the old locks and raised the first earth on the construction of the greatest ship lock in the world. Work on this structure will be pushed with the greatest speed day and night.

The Minnie M. and the large steambarge Spokane, worked a channel through the ice up as far as the elbow in Mud Lake, where they were met by the steambarge Geo. Spencer and consort, Minnehaha. Jos. Rauleau, the pilot was taking the Spencer to Detour. The Minnie M. proved herself to be a good ice boat. The Spokane would run her length into the ice and the Minnie M. would cut her out. Thus the Sault was passed.

EAST SAGINAW.

Special to the Marine Record.

The present week has been an unusually lively one in marine circles, something over 15,000,000 feet of lumber has left the river, and there is still a good demand for tonnage. A prominent vessel broker said yesterday that a rise in freights would be no surprise to him.

The barge B. M. Baker was in Bay City drydock for a general calking.

The Buck & Hubbell dredge has taken the contract for extensive improvements to the old mill property of T. Jerome & Co., which has recently passed into the hands of C. K. Eddy & Son, who will erect a planing mill and conduct a general retail yard business.

The Brand & Hardin Shingle-mill Co. have had a dredge at work for some time, deepening the channel, so as to allow large boats to load in full at the dock.

All operations on the Merrill boom have been discontinued, and the work is now being done about two miles further up the river, at Pamesville. The Boom Co. recently built two large boarding houses and have made other radical improvements to their property.

The tug E. Haight has been chartered for a few days by Carkin, Stickney & Cram, to take tug Carkin's place, she having considerable boiler work done to her.

Moiles Bros. have had a new boiler put into their tug Tom Dowling 6½ feet diameter by 12½ feet long, of Black Diamond steel, allowed 130 pounds of steam.

Dockwollopers wages are 40 cents per hour. But if freights go up 50 cents is wanted.

[*Continued in Supplement.*]

NOTICE.

Having made arrangements with the M. L. S. & W. R. R. Co., also with the Wisconsin Central R. R. Co. We shall keep the Tugs Pacific and Cyclone at Ashla d, during the season to handle vessels around their respective docks.

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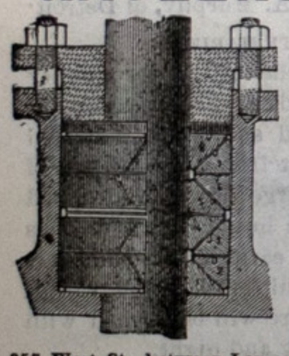

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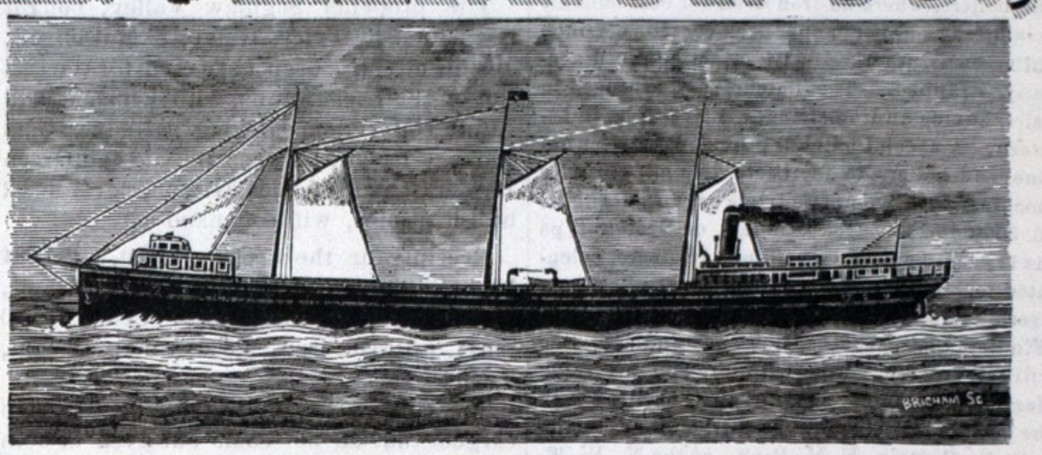

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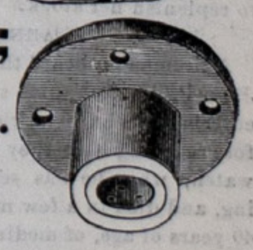

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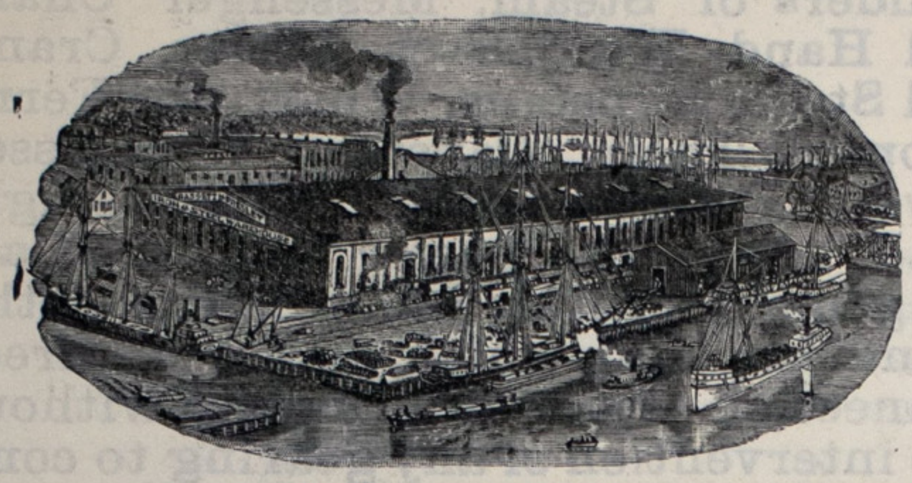

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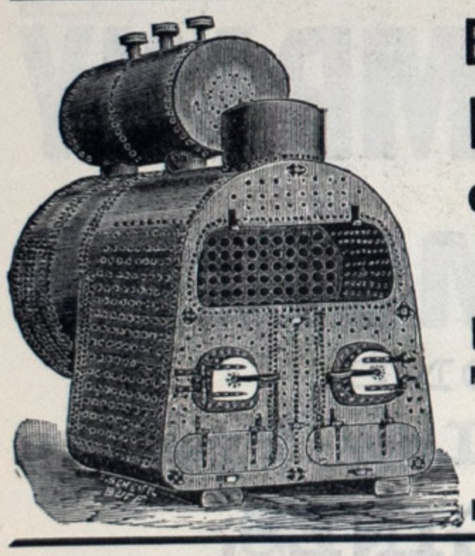

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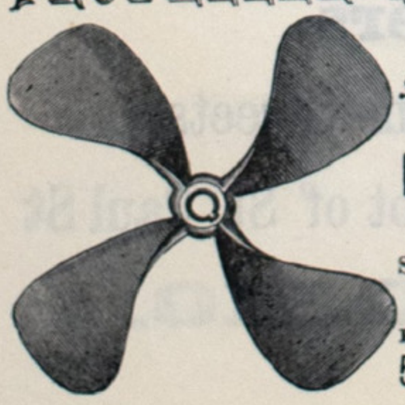
PROPELLER, TUG and YACHT WHEELS;



ALSO, SECTIONAL WHEELS,

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SPECIAL ATTENTION GIVEN TO REPAIRS OF

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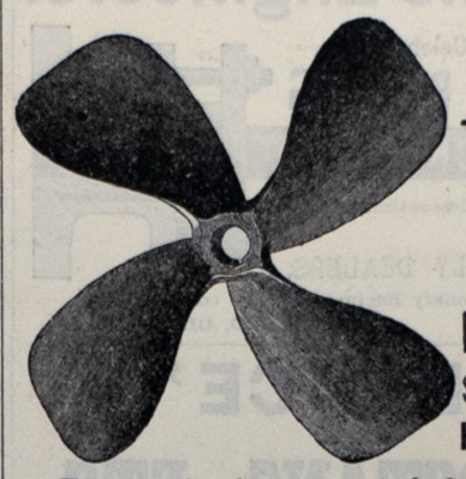

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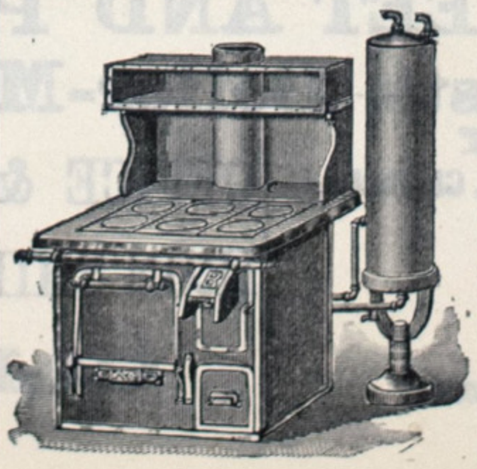

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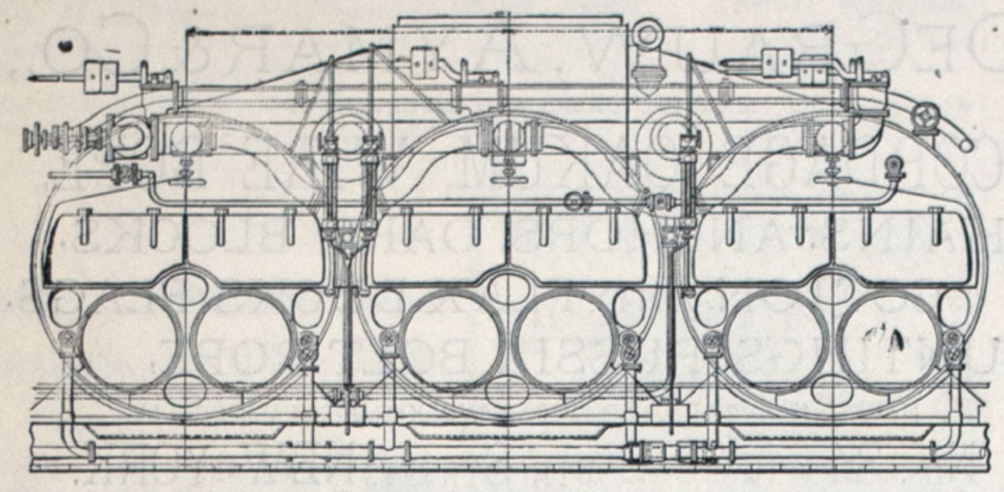

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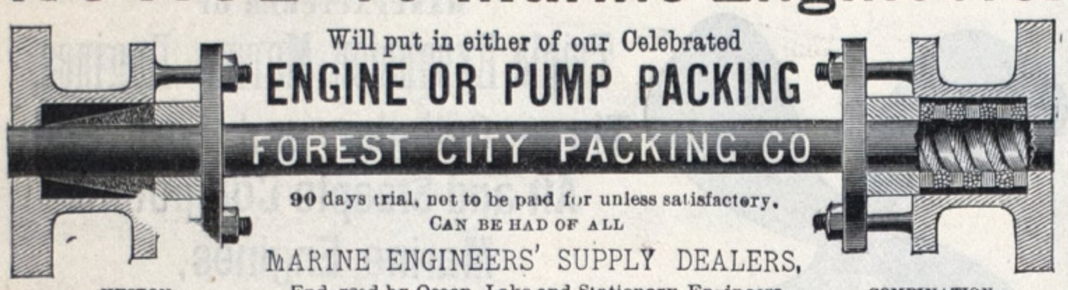

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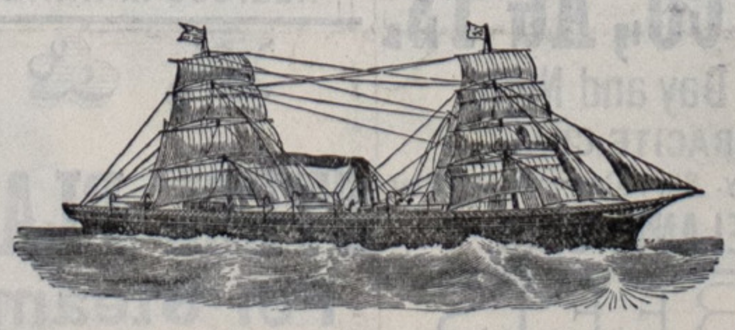
Blast Furnace and Rolling Mill Machinery, Hoisting and Pumping Engines, Portable Hoisting Engines.



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THE MARINE RECORD.

DEVOTED TO COMMERCE, ENGINEERING AND SCIENCE.

VOL. IX NO. 19. CLEVELAD. O.. MAY 12 1887.—SUPPLEMENT. $2.00 PER ANNUM SINGLE COPIES CENTS

For the Marine Record.

A STEWARD'S STORY—OVER THE LAKES

BY MARSHALL SPRING PIKE.

Hurrah! and hurrah! for our gallant ship,
While the winds are wild in their sport;
We are outward bound, so hurrah! hip! hip!
And safely return us to port
Cleveland's behind us, Lake Erie before,
And our mariners all on deck;
While far off abaft, on the fading shore,
Gleams the light, like a brilliant speck

Away, then away, past the bar to night,
And up through the river's swift tide;
Where the woods grow green as we heave in sight,
On the banks, over either side.
The morning is fair, and the day is new,
As we enter the shallow St. Clair;
Where the vista of willows breaks the view,
Near the watch-tower beacons there

Onward, still onward, and the lake is left,
As the sun sets red in the west;
And the rattling rudder has lost its heft,
For the waves are now lulled to rest
But the helmsman holds the wheel in its place,
As the quivering twilight dies;
While over the river, the moon's young face,
Like a crescent hangs on the skies

Ahead near ahead glare a thousand lights,
Through the masts of the moving fleet;
Whose high-circled haloes, illume the night
With splendor, o'er city and street.
The stars seem paler with envious fear,
While they beam on each radiant hue;
As the 'lectric white, on shore and pier,
With the green, mingles red and blue

Aloft, now aloft climb the nimble crew,
Who the sails to the breeze unfurl;
While the buntlines drop, and the unbent clew
Falls down with a vigorous hurl.
And the Gratiot point-light, long gone by,
Just glimmers, o'er the deck astern;
As forward our staunch ship seems to fly.
Past Sanilac's red tower turn.

Huron, bold Huron, the beautiful lake,
Whose waters are crystal and deep;
O'er thy bosom's cold graves, our course we take
Where many brave mariners sleep;
Who, with gay hearts, sailed out of port in pride,
And were wrecked by the storm's fierce rage;
Lost to mother, and sister, wife and bride,
And the loved ones of tender age

Beyond, up beyond, Point aux Barques' broad brow.
Past Saginaw, and Presque isle light;
Black, heavy clouds drift o'er the windward bow,
Which will break in a gale to-night.
But Cheboygan is near, and the sails all pull,
For the freshening breeze holds fair;
And if we can keep her steady, and full,
We will fetch into harbor there.

Abreast, now abreast of the town we lay,
Anchored safe in the roadstead path;
While the howling storm sweeps over the bay,
In its wild, tempestuous wrath
And the heavens are fired with lightning-blaze,
As thunder peals crash and jar;
Till clouds roll on, and the sun's bright rays,
Gild their crests in the east, afar.

Morning, glad morning, with northern breeze,
Bears up through Mackinaw Straits;
And we pass Bois Blanc, with its whitewood trees,
And Mackinac, of ancient dates.
While over the way stands the strong old Fort,
As a terror to foreign foe;
And looks with menace o'er rampart and court,
On the peaceful people below.

Ignace, St. Ignace, whose creedal belief,
Made devotees worship the name;
Lies east, on a point, from Waugoschance reef,
Where the priest to the Indians came.
We have passed the lighthouse, built on the rocks,
And the Isle aux-Galets, we scan;
And now, past the islands of Beaver and Fox,
We're on the great Lake Michigan

We sail, aye we sail, and the sea makes fast,
For the wind's hauled sou'west, by sou';
And the heavens with haze is overcast,
And the waves dash white o'er our prow
On port-side and starboard the lights are bright,
And the steward is cradled to sleep;
While captain and mates and crew thro' the night,
Their lookouts and lone watches keep.

Ahoy! ship ahoy! cries a brusky voice,
As the morning merrily wakes;
And quickly is heard the clattering noise,
Our crew on the forecastle makes.
The line runs out o'er the weather-bow rail,
To the tug, as it steams away;
The captain's order is, take in the sail,
For now we are over Green Bay.

Ashore, look ashore, Escanaba is seen,
O'er the point where the lighthouse stands;
Where masts, like a forest, stripped of its green,
Seem grouped o'er a waste of lands
Now, round the shoal-sandbar we veer and haul,
As the ore-city blushes ahead;
From its backwood of pines and cedars tall,
And marginal metals of red.

Hurrah! then hurrah! for our gallant ship,
Let the tempests whistle in sport;
Our haven is reached, so hurrah! hip! hip!
We are safe in the Iron Port.
Where the heavers rally in working suits,
To their labors in smut and crock;
While by the pier, with its ponderous shutes,
We rest, alongside of the docks.

NAVIGATION LAWS OF THE UNITED STATES.

[*Continued.*]

Sec. 4154. In order to ascertain the tonnage of any vessel, except as otherwise provided in this title, and in title L., the surveyor, or such other person as shall be appointed by the collector of the district to measure the same, shall, if the vessel be double decked, take the length thereof from the fore part of the main stem to the after part of the sternpost, above the upper deck, the breadth thereof at the broadest part above the main wales, half of which breadth shall be accounted the depth of such vessel, and shall then deduct from the length three-fifths of the breadth, multiply the remainder by the breadth, and the product by the depth, and shall divide this last product by ninety-five; the quotient whereof shall be deemed the true contents or tonnage of such vessel. If such vessel be single decked, the surveyor, or other person, shall take the length and breadth as above directed, in respect to a double decked vessel, shall deduct from the length three-fifths of the breadth and, taking the depth from the under side of the deck plank to the ceiling in the hold, shall multiply and divide in the same manner, and the quotient shall be deemed the tonnage of such vessel.

*Sec. 4155. When the several matters hereinbefore required, in order to the registering of any vessel, have been complied with, the collector of the district comprehending the port to which she belongs shall make and keep in some proper book a registry thereof, and shall grant a certificate of such registry, as nearly as may be in the form following:

In pursuance of chapter one, title XLVIII, "Regulation of Commerce and Navigation," of the Revised Statutes of the United States, (inserting here the name, occupation, and place of abode of the person by whom the oath was made,) having taken and subscribed the oath required by law, and having sworn that he (or she, and if more than one owner, adding the words, "together with," and the name or names, occupation or occupations, place or places of abode, of the owner or owners, and the part or proportion of such vessel belonging to each owner) is (or are) the only owner (or owners) of the vessel called the (inserting here her name,) of (inserting here the port to which she may belong,) whereof (inserting here the name of the master) is at present master, and is a citizen of the United States, and that the said vessel was (inserting here when and where built,) and (inserting here the name and office, if any, of the person by whom she shall have been surveyed or measured) having certified that the said vessel has (inserting here the number of decks) and (inserting here the number of masts,) and that her length is (inserting here the number of feet,) her breadth (inserting here the number of feet,) her depth (inserting here the number of feet,) and that she measures (inserting here her number of tons;) that she is (describing here the particular kind of vessel, whether ship, brigantine, snow, schooner, sloop, or whatever else, together with her build, and specifying whether she has any or no gallery or head;) and the said (naming the owner, or the master, or other person acting in behalf of the owner or owners by whom the certificate of measurement has been countersigned, as aforesaid) having agreed to the description and measurement above specified, and sufficient security having been given, according to law, the said vessel has been duly registered at the port of (naming the port where registered.) Given under my hand and seal, at (naming the said port,) this (inserting the particular day) day of (naming the month,) in the year (specifying the number of the year, in words, at length.)

Sec. 4156. When the master of such vessel himself makes oath touching his being a citizen, the wording of the certificate shall be varied so as to be conformable to the truth of the case. When a new certificate of registry is granted in consequence of any transfer of a vessel, the words shall be so varied as to refer to the former certificate of registry for her measurement.

Sec. 4157. It shall be the duty of the secretary of the treasury to cause to be provided blank certificates of registry, and such other papers as may be necessary, executed in such manner and with such marks as he may direct. No certificate of registry shall be issued, except such as shall have been so provided and marked.

Sec. 4158. The secretary of the treasury shall cause to be transmitted, from time to time, to the collectors of the several districts, a sufficient number of forms of the certificates of registry, attested under the seal of the treasury and the hand of the register† thereof, with proper blanks, to be filled by the collectors, respectively, by whom also the certificates shall be signed and sealed, before they are issued; and where there is a naval officer at any port, they shall be countersigned by him; and where there is a surveyor, but no naval officer, they shall be countersigned by him. A copy of each certificate issued shall be transmitted to the register, who shall cause a record to be kept of the same.

Sec. 4159. Whenever any citizen of the United States purchases or becomes owner of any vessel entitled to be registered, such vessel being within any district other than the one in which he usually resides, such vessel shall be entitled to be registered by the collector of the district where she may be, at the time of his becoming owner thereof, upon his complying with the provisions hereinbefore prescribed, in order to the registry of vessels. And the oath which is required to be taken may, at the option of such owner, be taken either before the collector of the district comprehending the port to which such vessel may belong, or before the collector of the district within which such vessel may be, either of whom is hereby empowered to administer such oath.

Sec. 4160. Whenever any vessel, registered in pursuance of the provisions of the preceding section, shall arrive within the district comprehending the port to which she belongs, the certificate of registry, so obtained, shall be delivered up to the collector of such district, who upon the requisites of this title in order to the registry of vessels, being complied with, shall grant a new one in lieu of the first. The certificate so delivered up shall forthwith be returned by the collector who receives the same, to the collector who granted it. If the first mentioned certificate of registry is not delivered up, as above directed, the owner and the master of such vessel, at the time of her arrival within the district comprehending the port to which she may belong, shall severally be liable to a penalty of one hundred dollars, and the certificate of registry shall be thenceforth void.

Sec. 4161. Whenever any vessel entitled to be registered is purchased by an agent or attorney for or on account of a citizen of the United States more than fifty miles distant, United States, such vessel being in a district of the taking the nearest usual route by land, from the one comprehending the port to which, by virtue of such purchase, and by force of this title, such vessel ought to be deemed to belong, it shall be lawful for the collector of the district where such vessel may be, and he is hereby required upon the application of such agent or attorney to proceed, to the registering of the vessel the agent or attorney first complying, on behalf and in the stead of the owner thereof, with the requisites prescribed by this title in order to the registry of vessels, except that, in the oath taking by the agent or attorney, instead of swearing that he is owner or an owner of such vessel, he shall swear that he is agent or attorney for the owner thereof, and that he has, in good faith, purchased the vessel for the person whom he names and describes as the owner thereof.

*In partnership ownership marine documents should, as a convenience and protection to individual owners, state the specific share of each partner.

†Commissioner of Navigation. Under act July 5, 1884.

It is stated that in the event of the interstate commission refusing to suspend the long and short haul clause for the benefit of the transcontinental lines, the Canadian Pacific has fully decided to put on an independent steamboat line between Chicago and Port Arthur for the purpose of competing for the carriage of Pacific coast freight, both east and west bound. Their tariff rates on through freight will be from 40 to 50 per cent less than the rates established by the American roads.

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H. J. WEBB & CO.,
Ship Brokers, Vessel Owners and Agents.
[ESTABLISHED IN 1856.]
H. J. WEBB & Co., will charter Vessels for Lake Trade. Special attention given to Chartering Vessels in the Lake Superior Iron Ore Trade, both for the season and single trip.
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ALEX McDOUGALL,
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Owners and masters of vessels wishing to get cargoes of grain from this port will do well to confer with me. Will be glad to furnish information in regard to cargoes, also in relation to docks, depth of water, etc., at **Duluth, Agate Bay** (new iron ore port), **Port Arthur, Washburn, Ashland,** and all points near the west end of Lake Superior. Good gangs of men furnished on short notice for trimming cargoes of grain, loading and unloading all kinds of freight.

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Special Attention Paid to Chartering Vessels, and seeing that they get dispatch in Port.
CORRESPONDENCE SOLICITED.

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Iron Ore Trimmer and Contractor,
ASHLAND, WIS.;
Has a large gang of men, and is in a position to give prompt attention to all orders intrusted to him.
SATISFACTION GUARANTEED IN EVERY RESPECT.

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C. A. KING,
General Stevedoring, Discharging Loading and Ore Trimming Promptly Attended to. A Large Force of Men always on Hand. Information in regard to
DEPTH OF WATER OF ALL DOCKS IN
ASHLAND HARBOR
gladly furnished. Quick dispatch guaranteed.
Patronage Solicited.
C. A. KING, Ashland Wis.

MARINE REPORTER AT THE STRAITS.
Reports of Passing Vessels a Specialty.
Messages Delivered to Passing Vessels Day or Night, Weather Permitting.
MY ICE REPORTS MAY BE RELIED ON.
SEVENTEEN YEARS EXPERIENCE
The Patronage of the Marine Public Respectfully Requested--Charges Reasonable.
F. J. STEMPSON, MACKINAW CITY MICH.

JOHN P. DEVNEY,
Marine Collector.
Collections Promptly Attended to.
ASHTABULA HARBOR, OHIO.

Continued from 5th Page.

A large fleet arrived in the river last week and quite a number are being loaded, while at the same time there are a number who are still without loads. There is one thing very certain that it looks dubious for the 00 craft, as there are a number here who cannot find any one willing to load them and this class of boats are the very ones to cut freights, as they have all to gain and nothing to loose. The present freight rates from this port to Buffalo, are $2.12½ and to Ohio $1.87½ or a shilling less from Bay City.

The tug Willie Brown, owned by A. C. McLean, went into commission last week under command of Captain Geo. Sherbert. She has been given a thorough rebuild and has been made better than when first launched. She has been sheathed with iron, to enable her to battle with the ice early and late in the season.

The barge G. W. Wesley, has taken lumber for Cleveland. She will load coal at Cleveland and go in the Lake Superior trade.

The steamer Eighth Ohio and tow came in the 2d. She brought the barge B. B. Iseman, up town loaded with stone for Reamer Bros.

In conversation with Captain Mike Madden, master of the steamship C. H. Green, of the Mason line, he stated to a party of lake men that he passed through the straits seven or eight years ago and when off Lexington, on Lake Huron, met a fleet bound up and was asked the best route through the straits. He informed the captains of the way he came. He passed on to Buffalo, unloaded and came back. He went through the south channel of the straits and while on the way discovered the boats that he met on his way down, in the ice in the north passage. When they saw the progress he was making they came around and followed him. The ice goes according to the wind, the captain explained, and there is no knowing from day to day which is the most favorable route to take at this season of the year, even in open lake.

The tug A. W. Wright, has had a new boiler put in this winter. She is in A1 shape. Captain Jim Bell pulls the string.

F. L. P. Fish, the boat builder, has made about 20 small boats the past winter. He has just completed a large yacht for O. C. Wisner, modeled after the noted yacth Trident, of New York. It will be taken to Bay Port this week. She is 25 feet 5 inches over all, 8 feet 4 inches beam, and 3 feet 2 inches depth of hold. The center board is 7 feet 8 inches. She will carry two spars. She is constructed of oak with cedar planking. The new craft can accommodate 20 persons with perfect safety and has been christened the Zenobia. SHAW.

MT. CLEMENS.

Special to the Marine Record.

The new vessel of the Tonawanda Barge Co. was successfully launched last Thursday, before a multitude of interested spectators. The boat glided gracefully into the embrace of the deep blue Clinton, and amid the cheers of the crowd her flags were flung to the breeze, one of which bore the name F. L. Buell, in honor of the coal merchant in Milwaukee. She is one of the best boats ever built here and is designed for the lumber trade. She will leave the river in the course of a week or two. Her dimensions are: Length over all 181 feet, beam 32 feet 6 inches, depth of hold 12 feet 6 inches, and cost $17,000.

The barge Ogden has been repaired at a cost of $2,000.

T. W. Snooks' new boat, the Atlantis, drifted down to Tucker's dock this week and received a large steel boiler from Macgregor's shops, Detroit. She will be ready for business in two weeks. L.

ALPENA.

Special to the Marine Record.

The barge Michigan left here Saturda for Chicago with the largest load of railroad ties ever shipped out of here, numbering 41,000.

The tug Ralph will be out this week. She has had new crown sheet and new legs put into her boiler, which puts it in first-class shape. The work was done by Mr. Gorrity, of Oscoda, who is a No. 1 boiler maker.

The Remora left here Saturday for Squaw Island, Georgian Bay.

The Effie L. is having her boiler covered.

The tug Smyth arrived here Sunday and her captain reports Georgian Bay solid with ice yet in many places.

The fog whistle on Thunder bay island, which is fifteen miles distant, can be heard very plainly here. It has been going for the last twenty-four hours.

The large steamer City of Cleveland will be here Monday night. She has taken the City of Alpena's place one trip. The citizens here are all anxious to see her. L.

SAUGATUCK.

Special to the Marine Record.

Captain John Martel, shipbuilder, Saugatuck, launched from his shipyard at that port, on April 10th, a steamer, 120 feet over all, 23 feet beam, 8 feet depth of hold. She will have an engine 18 by 20, by H. Blecker & Co., Grand Haven, and a steel boiler by Johnson Bros., Ferrysburg. She will have accommodations for twenty-five passengers, and will run between Saugatuck and Chicago as a passenger and freight boat. Her owners are Messrs. Griffin and Nice and Captain Dan Cummins, who will have command of her. She is named the Saugatuck.

AHNAPEE.

The scow William Finch, of this place, was struck by a sunken scow that was brought down the stream by a heavy current, and sunk in shallow water alongside the dock. She was loaded with twenty tons of landplaster. The damage is about $225.

FAIRPORT (O.) HARBOR IMPROVEMENTS.

Thirty years ago Fairport was one of the most important ports on the south shore of Lake Erie, but with the advent of railroads its glory began to depart. Until less than a year ago, when preparations began to be made to accommodate the P. P. & F. R. R., its value as a lake port had almost ceased. What life there was during a few preceding years was due to the feeble efforts of a narrow guage railroad which has now given place to a vigorous successor. The result of this change has been a complete revolution in the interests of Fairport. Within the year past great changes have been brought about. Two thousand feet of new dockage has been built, and an equal amount is now in course of construction. The most approved kind of machinery has been erected for handling ore and coal. Swamps have been filled with solid earth, and converted into firm and substantial storage ground for Lake Superior and Lake Michigan's valuable product. The coal and ore handling machinery now in position is sufficient to accommodate six vessels at the same time, and more machines will be brought into use as the completion of the dock extension proceeds, and until enough has been supplied to handle the million tons of ore and coal already under contract to be received and shipped from here the coming season. The piers are to be extended into water so deep that hereafter there will be no question as to the safety of entering the harbor with the largest class of vessels under any condition of weather. This work is to be commenced at once. As a result of this present and prospective prosperity people seeking new homes or a business location are coming here, induced also by the reasonable rates at which building sites can be purchased. Owners of property have wisely resolved not to put "boom" prices on their lands. Good, substantial dwelling and business houses are going up; the old hotel had been improved renovated, and a new commodious one has been built The pounding of the pile driver and the splash of the dredge adds new life along the river, which will be still livelier on the arrival of the full cargoes of the season. No postoffice has yet been established here, our mail being sent to Painsville, but we have satisfactory telegraph and telephone connections. A street railroad from Painsville is under consideration, a charter having been obtained and a company with ample capital organized. A grain elevator is to be built during the coming season, the plans and specification having been prepared and the necessary means provided for its early completion. Cargoes from Chicago and Duluth will be transferred to cars for transit to the seaboard. These changes have been brought about by the building of one railroad. There are good reasons for the belief that within one year still another railroad, the Painsville, Wooster & Ohio, will be placing its "black diamonds" upon our docks, and Fairport will boom indeed.

A GRACEFUL WORD.

NEW ORLEANS, LA., May 6.

To the Editor of the Marine Record:

DEAR SIR: Many, hearty thanks from myself and from many readers for the highly-prized MARINE RECORD, for my free, sailors' reading room. Please do not fail to continue it, and thus do much good here. I should be very glad to send you the subscription price, but I receive no compensation here, where I have been seamen's chaplain twenty-one years, and expend from my own resources about $1,000 a year. May the Lord richly reward you. Our reading room was never more prosperous and useful than now. Fraternally,

S. H. PEASE, Sea Chaplain.

"HEARTS ARE TRUMP."

That was the expression used by Mr. George Presley, as a strong force of workmen from the Cleveland dry dock were admitted to his residence Saturday evening. Mr. Presley, it is presumed had been playing at progressive eucher with his sons and their wives, and Mr. J. F. Pankhurst and his wife. It seems they had entered into a conspiracy to keep the late president of the Cleveland Dry Dock Co., at home one night in the week. Mr. Presley's assertion that hearts are trump was true in this instance, for the reason that the gentlemen whose names are appended had come to the front to demonstrate that fact, by presenting to him a valuable ebony cane, upon the gold head of which was inscribed the words: "Presented to George Presley by the employes of the Cleveland Dry Dock Co." Mr. Frank Wright, who had the instrument in hand, proceeded to verify Mr. Presley's belief in the following well chosen words:

Mr. Presley: It was with feelings of profound regret that the employes of the Cleveland Dry Dock Co., learned that you were about to retire from the active management in the company, and lay aside the cares of business. You have been so long and so intimately connected with the business, giving it your personal attention every day, year in and year out, rain or shine, that they had come to look upon you as a permanent fixture, which nothing short of death could remove.

While regretting the occasion which necessitates your retirement, they cannot but commend your determination to throw off the cares of an active business life, and enjoy that rest and comfort which you have earned and can so well afford.

It is unnecessary that I should say anything regarding you as an employer. The simple fact that so many of the men have joined in coming here this evening is of itself sufficient evidence of the pleasant relations which have always existed.

And now, sir, as the employes of the Cleveland Dry Dock Co., have expressed a desire to testify in some way their appreciation of you as a man and as an employer, I have the pleasure of presenting you, in their name, with this cane, which you will please accept as a slight token of their respect and esteem; and when ever you see it, or have occasion to use it, you will think with pleasure of past associations, and, I hope, hold in kindly remembrance your former employes."

Mr. Presley went at his response like a ship goes to her anchor under the power of her windlass, and thanked the gentlemen for their token of esteem with much feeling, and it was noticed that as he held the cane in his hand, not being used to that kind of cargo, he had quite a list to stabbard.

CLEVELAND, O., May 7, 1887.

As Mr. George Presley has disposed of his interest in the Cleveland Dry Dock Co., and is about to retire permanently from the business, we, desiring in some way to express our appreciation of him as an employer and as a man, therefore hereby agree to pay the sums set opposite our respective names for the purpose of procuring a suitable testimonial, to be presented to Mr. Presley:

The following are the names of employes who contributed to the snrprise:

John C. Joll,	J. T. Hewitt,
Linden Geitz,	James G. Blake,
G. W. Greeley,	William Watterson,
James Reethe,	Frank McRea,
John Burke,	J. Gounley,
Charles Walsh,	Peter Krust,
Samuel Bugg,	Bryan Ward,
John Getchell,	E. Warren,
William Wood,	Richard Harrison,
Joe Belangi,	I. K. Bishop,
Patrick Walsh,	George Bernard,
Stafford Williams,	A. Bertrand,
William Hampton,	T. Falvey,
James Mullen,	Peter Godin,
S. F. Langell,	William Maddocks,
Thomas Gill,	Joe Demars,
David Burton,	Peter Clampitt,
Ed Pelow,	Frank Page,
Thomas Burns,	R. Barber,
Thomas Kinley,	E. Bourget,
William Smith,	G. Thidault,
Archie Graham,	James Hay,
James B. Hawley.	

CHRONOMETERS.

Mistakes in land-falls due to errors of chronometers are not usually published, though experienced navigators know, perhaps more than they care to tell of such mishaps. The late inquiry into the loss of the brigantine Eschol, at Cape Breton Island, has brought this chronometer question to the fore. The vessel was proved to have been far out of her estimated course, and the master considered it was owing to the chronometer being inaccurate, which may have been due, he thought, to the knocking about the ship received in the heavy weather which prevailed. He accounted for being forty miles farther west than he calculated, by his chronometer being out 3½ min. The comments of the Shipping Gazette upon this case are:

"The allegation of chronometer failing owing to the long prevalence of big waves and strong gales of wind tossing a ship about has not been advanced for the first time. A chronometer must get a severe shaking in a small vessel during such weather as that which was encountered by the Eschol. The steady rise and fall of the brigantine on the tops and hollows of the waves would not, perhaps, do any injury whatever to a chronometer. It may be different, however, when a vessel is struck with a force of many tons and shaken. A violent jerk might paralyze the action or throw the works out of gear just enough to make the use of the instrument dangerous. A blow from a wave on the hull of a ship has before now stopped a chronometer permanently. Seas that will carry away bulwarks, boats, bridges, companions, and skylights, split up decks, and make the hull quiver from end to end, may well be sufficiently powerful to derange the delicate works of a chronometer, and if it be true that the motion can be so checked, the hands on the face will not be true. At all events, the disclosures made by the master of the Eschol suggests a danger against which caution must be observed."

Now, it may not be widely known, but it should be, that one maker at least constructs chronometers with a resilient escapement, so that they will neither set or trip under any kind or amount of rough treatment short of such as would break the springs, the pivots, or the teeth of the wheels. They are said to be proof against such violent external motions as jumping, riding, concussion, or sudden stoppage of carriage. A year or two since it was announced that at the Kew observatory trials would be instituted as to the performance of watches and chronometers under exceptional circumstances of preisely this nature; but probably the arrangements have not been perfected, as nothing more has been heard of these trials. There will still remain the question of the effect of magnetism upon the performance of chronometers at sea. But it can not be supposed that there would now be any insuperable difficulty in dispensing with much of the steel used in the construction of chronometers, so as to render them altogether indifferent to magnetic influence, just as watches are now made for the use of electricians. The appalling loss of ships, lives and property, calls for the most exacting attention to everything that may tend to the security of navigation, and this question of the accuracy of chronometers is assuredly one of considerable importance.—*Engineering.*

LITERARY NOTICES.

THE MAY CENTURY opens with two profusely illustrated papers of Egyptology, the special subject being the mummy of Pharaoh the Oppressor, the Pharaoh of the Bible, otherwise Rameses II., which, together with those of other Egyptian kings, was discovered in 1881 by Professor Maspero, but not identified until June, 1886. This number contains the first of several papers by Professor W. O. Atwater, of Wesleyan University, on "The Chemistry of Foods and Nutrition," being specifically devoted to "the composition of our bodies and our food." The subject is invested with a domestic as well as a scientific interest. The Lincoln History, by Messrs. Nicolay and Hay, advances to the consideration of the Border Conflict, treating events closely related to Lincoln's contemporary and future political action. The special topics are "Kansas in the Civil War," "Jefferson Davis on Rebellion," and "The Presidential Conventions of 1856." The paper in the War Series, which so far as the battles themselves are concerned it is expected will close with the October number of The Century, is this month devoted to the battle of Chattanooga, which is described by General J. S. Fullerton, together with a paper by General Rosecrans on "The Campaign for Chattanooga," descriptive of the movements of the Army of the Cumberland from October 30, 1862, when he assumed command in Kentucky, until he was relieved at Chattanooga in the fall of the next year. In "Memoranda on the Civil War" are printed two communications in the nature of replies to General Longstreet's recent article on General Lee's invasion of Pennsylvania; the first, by Colonel William Allen, taking exceptions to half a dozen points in General Longstreet's article, and the second, by Colonel John S. Mosby, bringing to light some hitherto unpublished letters tending to fix upon General Longstreet the responsibility of Stuart's expedition around Hooker. The "Topics of the Time" are devoted to "Executive Responsibility," "The Nation's Recent Debt to the South," "Food," and "The Problem of Government by Guilds."

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MARINE RECORD SUPPLEMENT.

NAVIGATION LAWS OF THE UNITED STATES.

Sec. 4148. Before any vessel shall be registered, she shall be measured by a surveyor, if there be one, or by the person he shall appoint, at the port or place where the vessel may be, and if there be none, by such person as the collector of the district within which she may be shall appoint. But in all cases where a vessel has before been registered as a vessel of the United States, it shall not be necessary to measure her anew, for the purpose of obtaining another register; unless such vessel has undergone some altera. tion as to her burden, subsequent to the time of her former registry.

Sec. 4149. The officer or person by whom such measurement is made shall, for the information of and as a voucher to the officer to whom the registry is to be made, grant a certificate, specifying the build of the vessel, her decks and masts, her length, breadth, depth the number of tons she measures, and such other particulars as are usually descriptive of the identity of a vessel, and that her name, and the place to which she belongs, are painted on her stern in manner required by this title; which certificate shall be countersigned by an owner, or by the master of such vessel, or by some other person who shall attend her admeasurement, on behalf of her owner or owners, in testimony of the truth of the particulars therein contained; without which the certificate shall not be valid.

Sec. 4150. The registry of every vessel shall express her length and breadth, together with her depth and the hight under the third or spar deck, which shall be ascertained in the following manner: The tonnage deck, in vessels having three or more decks to the hull, shall be the second deck from below; in all other cases the upper deck of the hull is to be the tonnage deck. The length from the fore part of the outer planking on the side of the stem to the after part of the main stern post of screw steamers, and to the after part of the rudder post of all other vessels measured on the top of the tonnage deck, shall be accounted the vessel's length. The breadth of the broadest part on the outside of the vessel shall be accounted the vessel's breadth of beam. A measure from the under side of the tonnage deck plank, amidships, to the ceiling of the hold, (average thickness,) shall be accounted the depth of hold. If the vessel has a third deck, then the height from the top of the tonnage deck plank to the under side of the upper deck plank shall be accounted as the height under the spar deck. All measurement to be taken in feet and fractions of feet; and all fractions of feet shall be expressed in decimals.

Sec. 4151. No part of any vessel shall be required by the preceding section to be measured or registered for tonnage that is used for cabins or state rooms, and constructed entirely above the first deck, which is not a deck to the hull.

Sec. 4152. The provisions foregoing relating to the measurement of vessels shall not be deemed to apply to any vessel not required by law to be registered, or enrolled, or licensed, unless otherwise specially provided.

Sec. 4153. The register tonnage of every vessel built within the United States or owned by a citizen or citizens thereof shall be her entire internal cubical capacity in tons of one hundred cubic feet each, to be ascertained as follows: Measure the length of the vessel in a straight line along the upper side of the tonnage deck, from the inside of the inner plank, average thickness, at the side of the stem to the inside of the plank on the stern timbers, average thickness deducting from this length what is due to the rake of the bow in the thickness of the deck, and what is due to the rake of the stern timber in the thickness of the deck and also what is due to the rake of the stern timber in one-third of the round of the beam; divide the length so taken into the number of equal parts required by the following table, according to the class in such table to which the vessel belongs:

TABLE OF CLASSES.*

Class one. Vessels of which the tonnage length according to the above measurement is fifty feet or under; into six equal parts.

Class two. Vessels of which the tonnage length according to the above measurement is above fifty feet and not exceeding one hundred feet; into eight equal parts.

Class three. Vessels of which the tonnage length according to the above measurement is above one hundred feet, and not exceeding one hundred and fifty feet; into ten equal parts.

Class four. Vessels of which the tonnage length according to the above measurement is above one hundred and fifty feet, and not exceeding two hundred feet; into twelve equal parts.

Class five. Vessels of which the tonnage length according to the above measurement is above two hundred feet, and not exceeding two hundred and fifty feet; into fourteen equal parts.

Class six. Vessels of which the tonnage length according to the above measurement is above two hundred and fifty feet; into sixteen equal parts.

Then, the hold being sufficiently cleared to admit of the required depths and breadths being properly taken, find the transverse area of such vessel at each point of division of the length as follows:

Measure the depth at each point of division from a point at a distance of one-third of the round of the beam below such deck; or, in case of a break, below a line stretched in continuation thereof, to the upper side of the floor timber at the inside of the limber strake, after deducting the average thickness of the ceiling, which is between the bilge planks and limber strake; then, if the depth at the midship division of the length do not exceed sixteen feet, divide each depth into four equal parts; then measure the inside horizontal breadth, at each of the three points of division, and also at the upper and lower points of the depth, extending each measurement to the average thickness of that part of the ceiling which is between the points of measurement; number these breadths from above, numbering the upper breadth one, and so on down to the lowest breadth; multiply the second and fourth by four, and the third by two; add these products together, and to the sum add the first breadth and the last, or fifth; multiply the quantity thus obtained by one-third of the common interval between the breadths, and the products shall be deemed the transverse area; but if the midship depth exceed sixteen feet, divide each depth into six equal parts, instead of four, and measure as before directed, the horizontal breadths at the five points of division, and also at the upper and lower points of the depth; number them from above as before; multiply the second, fourth and sixth by four, and the third and fifth by two; add these products together and to the sum add the first breadth and the last, or seventh; multiply the quantities thus obtained by one-third of the common interval between the breadths, and the product shall be deemed the transverse area.

Having thus ascertained the transverse area at each point of division of the length of the vessel as required above proceed to ascertain the register tonnage of the vessel in the following manner:

Number the areas successively one, two, three, and so forth, number one being at the extreme limit of the length at the bow, and the last number at the extreme limit of the length at the stern; then, whether the length be divided according to the table into six or sixteen parts, as in classes one and six, or any intermediate number, as in classes two, three, four, and five, multiply the second, and every even numbered area, by four, and the third, and every odd numbered area, except the first and last by two; add these products together, and to the sum add the first and last if they yield anything; multiply the quantities thus obtained by one-third of the common interval between the areas, and the product will be the cubical contents of the space under the tonnage deck; divide this product by one hundred, and the quotient, being the tonnage under the tonnage deck, shall be deemed to be the register tonnage of the vessel, subject to the additions hereinafter mentioned.

If there be a break, a poop, or any other permanent closed-in space on the upper decks, or the spar deck, available for cargo, or stores, or for the berthing or accommodation of passengers or crew, the tonnage of such space shall be ascertained as follows:

Measure the internal mean length of such space in feet, and divide it into an even number of equal parts of which the distance asunder shall be most nearly equal to those into which the length of the tonnage deck has been divided; measure at the middle of its height the inside breadths, namely, one at each end and at each of the points of division, numbering them successively one, two, three and so forth; then to the sum of the end breadths add four times the sum of the even numbered breadths and twice the sum of the odd numbered breadths, except the first and last, and multiply the whole sum by one-third of the common interval between the breadths; the product will give the mean horizontal area of such space; then measure the mean height between the planks of the decks, and multiply by it the mean horizontal area; divide the product by one hundred, and the quotient shall be deemed to be the tonnage of such space, and shall be added to the tonnage under the tonnage decks, ascertained as aforesaid.

If a vessel has a third deck, or spar deck, the tonnage of the space between it and the tonnage deck shall be ascertained as follows:

Measure in feet the inside length of the space, at the middle of its height, from the plank at the side of the stem to the plank on the timbers at the stern, and divide the length into the same number of equal parts into which the lengths of the tonnage deck is divided; measure, also at the middle of its height, the inside breadth of the space at each of the points of division, also the breadth of the stem and the breadth at the stern; number them successively one, two, three, and so forth, commencing at the stem; multiply the second, and all other even-numbered breadths, by four, and the third, and all the other odd numbered breadths, except the first and last, by two; to the sum of these products add the first and last breadths, multiply the whole sum by one-third of the common interval between the breadths, and the result will give, in superficial feet, the mean horizontal area of such space; measure the mean height between the plank of the two decks, and multiply by it the mean horizontal area, and the product will be the cubical contents of the space; divide this product by one hundred, and the quotient shall be deemed to be the tonnage of such space, and shall be added to the other tonnage of the vessel ascertained as above directed. And if the vessel has more than three decks, the tonnage of each space between decks, above the tonnage deck, shall be severally ascertained in the manner above described, and shall be added to the tonnage of the vessel, ascertained as above directed.

In ascertaining the tonnage of open vessels the upper edge of the upper strake is to form the boundry line of measurement, and the depth shall be taken from an athwart ship line, extending, from the upper edge of such stake at each division of the length.

The register of the vessel shall express the number of decks, the tonnage under the tonnage deck, that of the between decks, above the tonnage deck; also that of the poop or other inclosed spaces above the deck, each separately. In every registered United States vessel the number denoting the total registered tonnage shall be deeply carved or otherwise permanently marked on her main beam, and shall be so continued; and if it at any time cease to be so continued, such vessel shall no longer be recognized as a registered vessel of the United States.

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*What vessels may be registered—Vessels employed in the coasting trade may have a register, if the owners so choose.

Vessels employed in the whale fisheries may be authorized by the secretary of the treasury to do so, under restrictions and regulations. It seems that the power has never been exercised, or that the regulations have been lost to sight.

What vessels must be registered—Vessels engaged in trade with a foreign country must be under register (Article 16, Regulations of 1874.)

The Chicago and Ogdensburg line boats will be commanded as follows: W. A. Haskell, Captain H. Howard; W. L. Frost, Captain Shay; W. J. Averell, Captain W. Rollo; Waverly, Captain J. Hulligan; Newburg, Captain A. E. White; B. W. Blanchard, Captain W. B. Waite; St. Paul, Captain James Owens; John Pridgeon, Captain Sherwood.

OIL ON THE WATER.

Special Correspondence of the Marine Record.

SANDUSKY, May 2.

Having noticed several articles in the MARINE RECORD on the subject of oil on the waters, I purpose to relate a part of my own experience. During the years from 1861 to 1865, I was in command of the lighthouse schooner Watchful. An invoice of 3,000 gallons of oil, taken on board at Buffalo, proved to be a bad lot of packages, and every time the vessel fell in with a heavy sea, the pumps would show oil. On the 11th of August, 1861, we were bound to Cleveland from the west. Before reaching Cleveland we met the commencement of the great gale of that year. Under double-reefed canvas I held the schooner to it from off Rocky river, and although the Watchful was remarkably smart, yet the advancing current and very short, heavy sea compelled me to bear up before it and run for Kelly's island. At 8 a. m., when off Black River, we pumped ship. The schooner, from a defective "pocket-piece," would, when sail was carried hard, as had been that morning, make considerable water. The pumps showed signs of water and oil, and the roll of the vessel would let the water and oil overboard on each side, thus giving it a good spread. The sea, by this time, was at its best. On looking over the stern of the vessel, for miles and miles the track of the oil could be seen, and it looked like a distinct canal. This continued as long as the oil and water went overboard. A small boat could have passed through this oil-made track safely. When I arrived at Kelly island I had to come to, well out in a quite heavy sea-way, thus keeping the leaky oil running. On pumping again a line of smooth water was to be seen more than a mile astern, and was observed by a number of masters who were then lying at anchor, and the oil so completely quelled the rolling sea that a small boat could have lain at anchor in very nearly smooth water.

The great difficulty in adopting this plan will be to so use the oil as to get the advantage of the comparatively smooth water. What a god-send it would have proved if oil could have been forced out from the jibboom end when vessels have to come to in great gales before they could enter Chicago; or, when vessels are obliged to heave to in a heavy sea-way, if they could by some means force a small stream of oil well to windward; or, when a vessel is on a lee shore, if oil could be used to smooth the water so that a vessel's boat or the life-saving crew could reach them. It seems to me that the Dauntless, when hove to in that tremendously heavy cross sea, could have been eased up very much by the use of oil to windward.

T. C. MCGEE.

CANADIAN CANAL AT SAULT STE MARIE.

The Sarnia Canadian says: The reference in the speech from the throne to the necessity of a canal on the Canadian side of the Sault ste Marie we regard as the most important measure fore-shadowed in the sessional programme. Irrespective of the possible "interruption of the navigation of our inland waters—a possibility by no means remote—there is a commercial necessity for a canal on the Canadian side of the rapids. Great as are the facilities of the American canal for locking shipping through they were fully taxed last season; and every year's traffic on the canal greatly exceeds that of the year previous. So much is this the case that the government at Washington is considering the necessity of giving further canal facilities to the growing commerce of the lakes. Delays at the canal may mean a loss of millions. A canal on the Canadian side would be a cheap undertaking compared with the one on the opposite side of the river. In this the natural configuration of the country favors us. Our Canadian canal, when finished, should be free like its American neighbor. The same facilities for locking through American shipping should be accorded our neighbors as they extend to us. It could be so arranged that up-lake traffic should all pass through the Canadian canal, and all down-lake traffic through the American, or *vice versa*. This would be a great saving of time. The natural outfit, so to speak, of this country is incomplete without a canal of our own at the Sault. It should have been constructed years ago. It is true we have managed to get along without it; but if it is much longer delayed the country may have cause to regret its want of foresight.

MARINE ENGINE WANTED.

The undersigned wants a 14 by 14 or 14 by 16 Marine Engine wheel, shaft, etc. Must be cheap.

JAS E. ENGLISH.

Saginaw River Steamboat Line, East Saginaw, Mich.

A SAILOR'S LIFE AND DUTIES.

Written for the Marine Record.

BY C. M. FLYNN.

NO. I.

As we have now a long spell of fine weather, without any incident to break the monotony of our lives, I will describe the duties, regulations and customs of an American merchantman, of which ours was a fair specimen, of a two years' voyage around the world, on board the ship Regulator, of Boston, Captain Holbrook.

The captain, in the first place, is lord paramount. He stands no watch, comes and goes when he pleases, is accountable to no one, and must be obeyed in everything without a question, even from his chief officer. He has the power to turn his officers off duty, and to even break them and make them do duty as sailors in the forecastle. Where there are no passengers and no supercargo, he has no companion but his own dignity, and no pleasures, unless he differs from most of his kind, but the consciousness of possessing supreme power, and occasionally the exercise of it.

The prime minister, the official organ, and the active and superintending officer is the chief mate. He is first lieutenant, boatswain, sailing master, and quartermaster. The captain tells him what he wishes to have done, and leaves to him the care of overseeing and of allotting the work; also, the responsibility of its being well done. The mate, as he is always called (par excellence), also keeps the log-book, for which he is responsible to the owners and insurers, and has charge of the stowage, safe-keeping and delivery of the cargo. He is also, ex-officio, the wit of the crew; for the captain does not condescend to joke with the men, and the second mate no one cares for, so that when "the mate" thinks to entertain "the people" with a coarse joke, or a little practical wit, every one feels bound to laugh.

The second mate's is proverbially a dog's berth. He is neither officer nor man. The men do not respect him as an officer, and he is obliged to go aloft to furl and reef the topsails, and to put his hands into the slush and tar with the rest. The crew call him the "sailor water," as he has to furnish them with spun yarn, marline, and all other stuffs that they need in their work, and has charge of the boatswain's locker which includes serving boards, marline-spike, etc., etc. He is expected by the captain to maintain his dignity, and to enforce obedience, and still is kept at a great distance from the mate, and is obliged to work with the men. He is one to whom little is given, and of whom much is required. His wages are usually double those of a common sailor, and he eats and sleeps in the cabin, but he is obliged to be on deck nearly all his time, and eats at the second table, that is, makes a meal out of what the captain and mate leave.

The steward is the captain's servant and has charge of the pantry, from which every one, even the mate himself is excluded. These distinctions usually find him an enemy in the mate, who does not like to have any one on board who is not entirely under his control; the crew do not consider him as one of their number, so he is left to the mercy of the captain. The cook is the patron of the crew, and those who are in his favor can get their wet mittens and stockings dried, or light their pipes in the galley at the night watch. These two worthies, together with the carpenter, and sail maker, if there be one, stand no watch, but being employed all day, are allowed to "sleep in" at night unless all hands are called.

The crew are divided into two divisions as equally as may be, called the watches. Of these, the chief mate commands the port, and the second mate the starboard. They divide the time between them, being on and off duty, as it is called, on deck and below, every four hours. If, for instance, the chief mate, with the port watch, has the first night watch, from 8:00 to 12:00, at the end of four hours the starboard watch is called and the second mate takes the deck, while the port watch and first mate go below and come on deck at 4:00 in the morning, when they come on deck again and remain until 8:00, having what is called the morning watch. As they will have been on deck eight hours out of twelve, while those who had the middle watch from 12:00 to 4:00, will have been up only four hours, they have what is called "a forenoon watch" below, that is, from 8 a. m. until noon. In a man-of-war, and in some merchantmen, this alternation of watches is kept up throughout the twenty-four hours; but our ship, like most merchantmen, had "all hands" from 12 o'clock till dark except in bad weather, when we had "watch and watch."

An explanation of the "dog watches" may, perhaps, be of use to one who has never been to sea. They are to shift the watches each night so that the same watch need not be on deck at the same hour. In order to effect this, the watch from 4:00 to 8:00 p. m. is divided into two half or dog watches, one from 4:00 to 6:00, and the other from 6:00 to 8:00. By this means, they divide the twenty-four hours into seven watches instead of six, and thus shift the hours every night. As the dog watches come during twilight, after the day's work is done, and before the night watch is set, they are the watches in which everybody is on deck; the captain is up, walking on the weather side of the quarter deck; the chief mate is on the lee side, and the second mate about the weather gang-way. The steward has finished his work in the cabin, and has come up to smoke his pipe with the cook in the galley. The crew are sitting on the windlass or lying on the forecastle, smoking, singing or telling long yarns At 8 o'clock eight bells are struck, the log is hove, the watch set, the wheel relieved, the galley shut up and the other watch goes below.

The morning commences with the watch on deck "turning to" at daybreak and washing down, scrubbing, and swabbing the decks. This, together with filling the scuttlebutt with fresh water, and coiling up rigging, usually occupies the time until seven bells (half past seven) when all hands go to breakfast. At 8 o'clock the day's work begins and lasts until sundown, with the exception of an hour for dinner.

[To be Continued.]

SANDUSKY DISTRICT.

Captain T. C. McGee, an old mariner has compiled a list of vessels, built, owned or documented in the Sandusky district since 1822 for the MARINE RECORD. The list will be continued until all are told:

STEAMERS.

Name.	Where Built.	Y'r	Ton.
J. W. Bennett	Huron	1876	81
R. B. Hayes	Sandusky	1876	164
Louise	"	1878	83
Josephine	"	1879	36
Geo. A Marsh	"	1879	62
Monitor	Detroit	1870	128
Wm. Edwards	Abbott's Br	1877	1272
J. V. Lutts	Port Clinton	1880	36
American Eagle	Sandusky	1880	161
Jay Cooke	Detroit	1868	414
Relief	Buffalo, N. Y.	1871	133
St. Paul	Michigan	1868	622
P. L. Johnson	Cleveland	1875	159
Bessie	New Baltimore	1880	89
Myrtle	Lorain	1875	18
A. J. True	———	1881	16
Anna Robertson	Toledo	1880	18
Ella G	Port Clinton	1882	110
Cal Davis	Buffalo	1873	24
S. H. Hunter	"	1872	24
Trio	"	1883	16
Sakie Shepard	Huron	1883	98
Norma	Sandusky	1884	78
S. L. Wayland	Vermillion	1885	13
Ingwersen	Port Clinton	1885	30
Roland	Sandusky	1885	91
Henry Douglas	"	1885	8
J K. Secor	Toledo	1884	74
Cumberland	Cleveland	1881	1280
Oregon	Bay City	1882	363
Hero	Detroit	1870	19
Erwin	Lorain	1886	16
Col. Bartlett	Fremont	1886	11
D. Dussault	Sandusky	1886	39

SCHOONERS.

H. H. Hine	Fairport	1871	150
Kate Grant	Conneaut	1880	31
J. A Garfield	Sandusky	1880	72
James Wade	Henderson N.Y.	1873	271
Havana	Oswego	1871	306
Bertha Winnie	Toussaint	1871	16
Red Cloud	Toledo	1871	17
Iosco	Michigan	1873	235
Theodore Vosges	Black River	1876	163
Julia	Sandusky	1881	25
Columbia	Cleveland	1881	1053
Sam'l H Foster	"	1873	720
Comrade	Buffalo	1883	910
W. S. Crosthwaite	"	1873	639
Morning Lark	Port Huron	1883	66
Young Reindeer	Sandusky	1882	25
Nellie A. Duff	Port Clinton	1885	51
C R. Truax	Trenton, Mich	1875	31
B. F. Bruce	East Saginaw	1873	692
Eva	Kingsville	1881	15
Mariner	Michigan	1874	41

SLOOP.

Fame	Detroit	1854	28

VALUABLE MARINE DATA.

The navy department has received from a England a report on the results of some experiments made with a number of screw propellers applied to the Destructor, a war ship just built for the Spanish government, that affords some valuable data for marine engineers. Seven screw propellers were tried separately on this vessel, beginning with one 7 feet 5 inches in diameter, 9 feet 2 inches pitch and 14 feet in area, which is about the standard size of a screw for a vessel of the Destructor's class. The size of the screw was gradually reduced to 7 feet 3 inches and 11¼ feet area and the pitch increased to 9.2 feet, with the result that the speed of the vessel was increased from 21 knots to 22.68 knots, while the engines were able to increase their indicated horse power from 3,400 to 3,829.

OBITUARY.

CAPTAIN ISAAC M. GREEN.

Captain Isaac M. Green died suddenly Saturday, the 23d inst., at Neenah, Wis., in his 78th year. He got up at an early hour, built a fire, and ate his breakfast, and died in his chair at 6:30 a. m.

He commenced sailing when only ten years of age on Lake Ontario. In the year 1829 he became master of the schooner Arcadia. In 1834 he fitted out the brig Winnebago, built at Oswego, and took her to Chicago, laden with salt. She was the first vessel that ever arrived at Chicago from Oswego, and was owned by Brunson & Crocker. He was a vessel owner and master up to 1865, and was widely known among vessel men as one of the most sober, moral men on the lakes and was greatly respected. He leaves a widow, one daughter and two sons, Captain O. W. Green, who is at present in command of the steamship J. F. Eddy, and Captain C. W. Green, who retired from the lakes in 1869, after the loss of the Dunderburgh, which he commanded. She was sunk in collision with the propeller Empire State, off Sand Beach, Lake Huron.

STEAMSHIP ECONOMY.

At a recent meeting of the engineering section of the Bristol naturalists' society, a paper on "Compounding Oscillating Marine Engines," of which the following is a summary, was read by Mr. J. W. J. Harvey:

In describing the method adopted, attention was called to the fact that in the search after economy the history of these engines is somewhat unique, if not altogether exceptional, from the circumstance that no less than three separate classes of engines had been at work in the same vessel, the Juno, viz.: "jet condensing," "surface condensing," and "compound," under almost identical conditions of "draught of water," "displacements," "midship area," "propeller," etc., from which probably may be drawn some useful conclusions as to the cost of motive power in steam vessels, having regard to the description of machinery employed. With the "jet condesing" engines, working with a boiler pressure of 30 lb. per square inch, an indicated horse power of 1,605 was developed on a consumption of 92 tons of coal per voyage, giving the vessel a speed of 14 1-10 knots per hour. Subsequently the engines were fitted with a surface condenser and new boilers working at the original pressure of 30 lb. per square inch, when the same indicated horse power and speed were maintained on a reduced consumption of 84½ tons of coal per voyage.

At the time the above alterations were made, although it was seriously under consideration to fit the vessel with compound engines, the competition was not so keen as to warrant the heavy outlay such a change would have involved, and recourse was therefore had to the surface condesing arrangement. In process of time it is scarcely necessary to be reminded that competition in the shipping trade had become much more severe, so that the vessel had to compete with others in the same trade more recently built and fitted with compound machinery, and it is evident that she would be out of the race unless a considerable reduction could be made in the coal bill. The vessel was too good and too great a favorite to be cast aside as obsolete; and as the outlay for entirely new compound machinery would not have been justifiable, it was determined to compound the existing engines at as moderate a cost as possible, at the same time maintaining such a rate of speed as would enable her to hold her own with her more modern rivals. In carrying out this idea it was necessary to retain as much of the existing machinery as possible, and to do this it was determined to keep one of the existing cylinders as the low pressure cylinder of the compound arrangement, and to so proportion the new high pressure cylinder as to obtain the maximum power possible, and by this means the greater part of the existing machinery was preserved, one cylinder, the entablatures, shafts, paddle wheels, condenser, side frames, air, circulating, and bilge pumps being retained, and the new parts required consisted only of one cylinder, two sets of link motion, two feed pumps, a steam starting engine, and, of course, a pair of cylindrical boilers working at 80 lb. pressure. The result was a compound engine having cylinders 40 in. and 66 in. diameter by 72 in. stoke, giving 1,270 indicated horse power, and a speed of 13 4 10 knots per hour, on a consumption of 49 tons of coal per voyage, the conditions as to draught of water, etc., remaining the same as before. The conclusions to be drawn are, therefore, that with 335 less indicated horse power, we have the loss of three-quarters of a knot in speed, or in other words, it takes 335 indicated horse power to get the last three-quarters of a knot, or about one-fifth of the whole power; that, when working with the jet condenser, the coal consumption was 92 tons per voyage. When working with the surface condenser, the consumption was 84½ tons per voyage, or a saving of 8¼ per cent; and when compounded, the consumption was 49 tons per voyage, giving a saving of 46½ per cent over the jet condenser, and 42 per cent over the surface condenser. This result was deemed highly satisfactory, and has enabled the vessel to compete successfully with those of a more modern type, and to retain her place on the line in which, through all weathers and seasons she has established for herself a favorable and wide spread reputation.

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